

THOMSON

29EX42E

MODEL

SERVICE MANUAL

SERVICE POSITION - POSITION SERVICE - SERVICESTELLUNG - POSIZIONE SERVIZIO - POSICI3N SERVICIO

A - CHASSIS - CHASIS

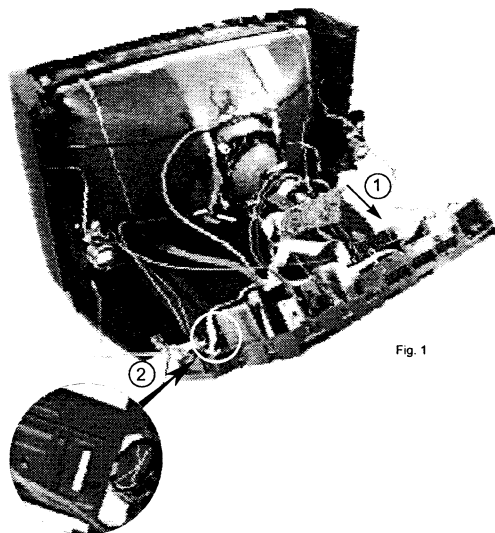


Fig. 1

- 1- Raise lightly the chassis, pull it (1) up to an intermediate position to get free.
 - 2- Tip the chassis and insert the small tongue (2) in extremity of the maintain rail to fix the chassis in service position (Fig.1).
- 1- Soulever légèrement le châssis et le tirer (1) jusqu'à une position intermédiaire pour le dégager.
- 2- Basculer le châssis et engager les languettes (2) en extrémité des réglettes de maintien pour fixer le châssis en position de service (Fig.1).
- 1- Heben Sie das Chassis leicht an und ziehen es nach hinten halb heraus. Heben Sie das Chassis aus den Führungsschienen.
- 2- Kippen Sie das Chassis und hängen es mit den Laschen (2) am Chassisrahmen in die sich am Ende der Führungsschienen befindlichen Ösen (Fig.1) ein.
- 1- Sollevare leggermente il telaio e tirarlo (1) fino ad una posizione intermedia per poterlo estrarre.
- 2- Inclinare e inserire le linguette (2) nelle apposite guide per mantenere il telaio fisso nella posizione service(Fig.1)
- 1- Alzar ligeramente el chasis, y dejarlo en una posición intermedia (1)
- 2- Bascular el chasis e insertar las lengüetas (2) en los extremos, para mantener el chasis fijo en la posición de servicio (Fig. 1).

B - POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE - NETZTEIL- UND ABLENKPLATINE - PIASTRA DEFLESSIONE / ALIMENTAZIONE - PLACA ALIMENTACI3N / BARRIDOS

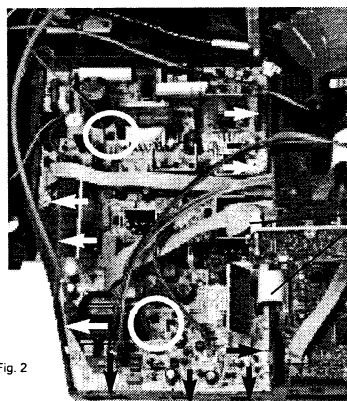


Fig. 2

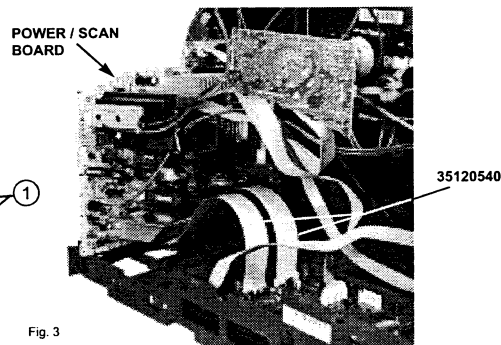


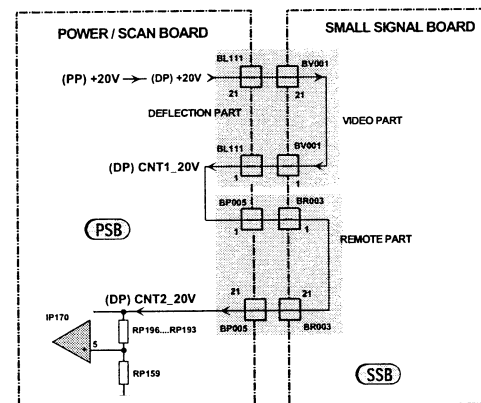
Fig. 3

- 1 - Remove the two connection cable PSB/SSB (1) (Fig.2) and get free the "PSB" board from the chassis in pressing the maintain tongue (9 in periphery and 2 in the board) (Fig.2). Put the two extension cable PSB/SSB (35120540) (Fig.3).
 - 2 - Put the PSB board in service position (Fig. 3).
- 1 - Retirer les cordons de raccordement PSB/SSB (1) (Fig.2) et dégager la platine "PSB" du châssis en appuyant sur les languettes de maintien (9 en périphérie et 2 en interne) (Fig.2). Mettre les cordons prolongateurs de raccordement PSB/SSB (35120540) (Fig.3).
- 2 - Mettre la platine PSB en position de service (Fig. 3)
- 1 - Entfernen Sie die beiden Verbindungskabel PSB/SSB (1) (Fig.2). Zum Ausbau der PSB-Platine lösen Sie die 9 Halteklammern um die Platine herum und die 2 Klammern in der Platine wie (Fig.2) dargestellt. Stecken Sie die Verlängerungskabel PSB/SSB (35120540) (Fig.3) ein.
- 2 - Bringen Sie die PSB-Platine in die Service-Position (Fig. 3).
- 1 - Togliere i due cavi di collegamento PSB/SSB (1) (Fig.2) e liberare la piastra "PSB" dal telaio premendo le linguette di fissaggio (9 periferiche e due interne) collegare le prolunghe PSB/SSB (35120540) (Fig.3).
- 2 - Sistemare la piastra PSB in posizione di service (Fig. 3).
- 1 - Retirar los dos cables de conexi3n PSB/SSB (1) (Fig.2) y soltar la placa "PSB" del chasis presionando las lengüetas (9 en la periferia y 2 en la placa) (Fig. 2). Enchufar los dos cables prolongadores PSB/SSB (35120540) (Fig.3).
- 2 - Poner la placa PSB en la posici3n de servicio (Fig. 3)

ICC20

First issue 05 / 00

CONNECTING SAFETY POWER BOARD / SIGNAL BOARD SECURITE DE CONNEXION PLATINES PUISSANCE / PETITS SIGNAUX VERBINDER ZWISCHEN NETZTEIL/ABLENK-PLATINE UND SIGNAL-PLATINE COLLEGAMENTI DI SICUREZZA DELLA PIASTRA POTENZA/PIASTRA SEGNALI CONEXIONES DE LA SEGURIDAD ENTRE LA PLACA ALIMENTACI3N / SEÑAL



(GB)

The 20V voltage which is fed in a loop CNT1_20V => CNT2_20V through the connectors going to the signal processing boarder in order to insure a good connection between both boards and to protect the PSB and the SSB boards.

CNT1_20V => safety of the sheet BL111 / BV001

CNT2_20V => safety of the sheet BP005 / BR003

If one of these voltage does not exist (20V comprise) the IP170 output will be 0 and the phototransistor IP070 is blocked and the set will be in standby.

(F)

Le cheminement de la tension 20V par la platine petits signaux est effectué sous forme de boucle CNT1_20V => CNT2_20V afin de protéger les platines PSB et SSB en cas de mauvaise connexion des nappes BR003 et BV003.

CNT1_20V => sécurité de la nappe BL111 / BV001

CNT2_20V => sécurité de la nappe BP005 / BR003

Si l'une de ces tensions (20V inclue) n'est pas présente la sortie de IP170 passe à 0 entraînant le blocage du phototransistor IP070 et par suite le passage en standby.

(D)

Um die PSB- und die SSB-Platinen zu schützen und um eine sichere Betriebsspannungsversorgung dieser Platinen zu gewährleisten, ist die +20V-Versorgungsschiene (CNT1_20V => CNT2_20V) über die Verbinder BV001 und BR003 durchgeschleift.

CNT1_20V => Schutz über Flachbandkabel BL111 / BV001

CNT2_20V => Schutz über Flachbandkabel BP005 / BR003

Sollte eine dieser Betriebsspannungen fehlen, wird der Ausgang des IC IP170 (Pin 7) 0V, der Fototransistor im Optokoppler IP070 sperrt und das Gerät schaltet in Standby.

(I)

L'alimentazione di 20V alla piastra elaborazione segnali viene fornita dai connettori CNT1_20V => CNT2_20V in modo da assicurare una protezione delle piastre PSB e SSB nel caso che si manifesta se un cattivo collegamento.

CNT1_20V => protezione BL111 / BV001

CNT2_20V => protezione BP005 / BR003

Se una di queste tensioni 20V non fosse presente l'uscita di IP170 passa a 0V determinando il blocco del fototransistor IP070 e il successivo passaggio in standby.

(E)

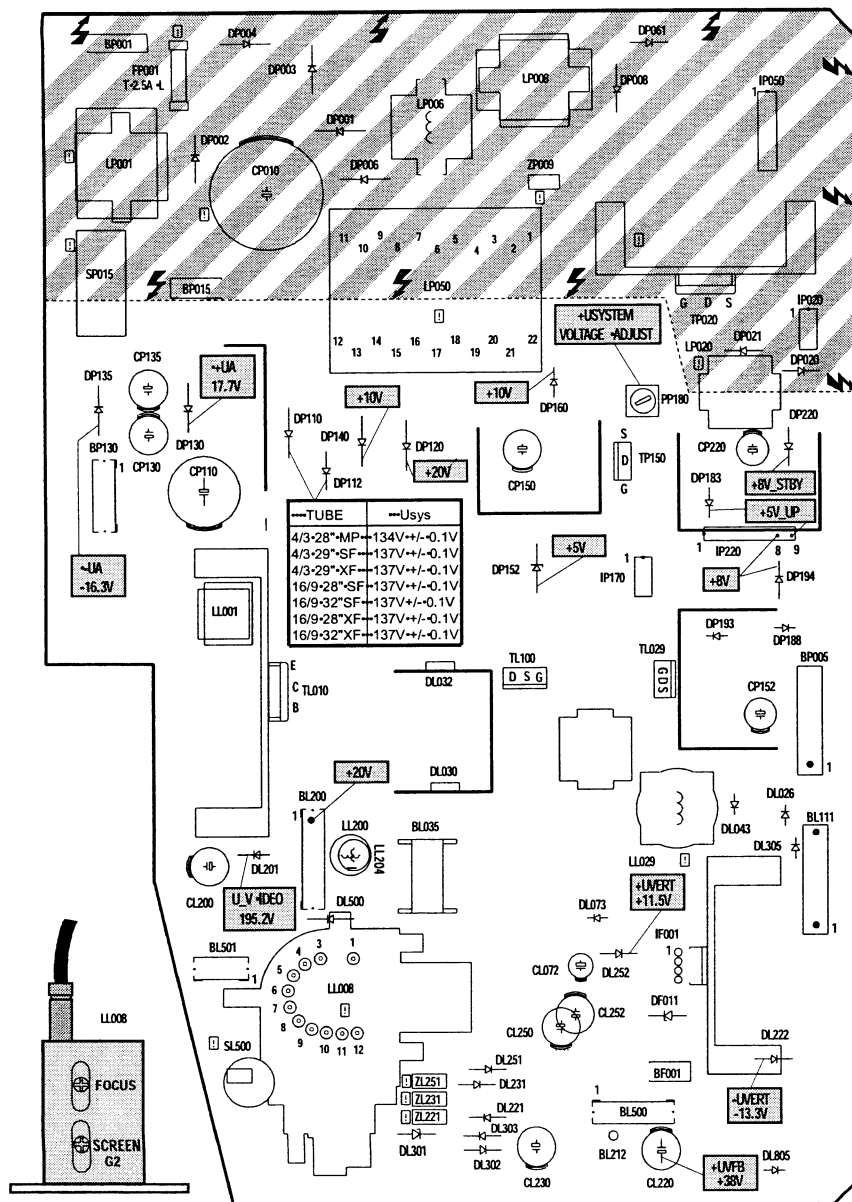
El recorrido de la tensión de 20V por la placa SSB se efectúa en forma de bucle CNT1_20V => CNT2_20V con el fin de proteger las placas PSB y SSB en el caso de un fallo de los conectores

CNT1_20V => seguridad del mazo BL111 / BV001

CNT2_20V => seguridad del mazo BP005 / BR003

Si una de estas tensiones faltan (incluidos los 20 V), la salida de IP70 será 0, el fototransistor IP070 se bloquea y el TV pasará a Standby (modo espera)

**LOCATION-OF-CONTROLS~EMPLACEMENT-DES-REGLAGES~
SERVICE-LAGEPLAN~POSIZIONE-REGULATORI-DI-SERVIZIO~
SITUACIÓN-DE-LOS-AJUSTES**



Part-of-board-connected-to-mains-supply.
Partie-du-châssis-reliée-au-secteur.
Primärseite-des-Netzteils.
Parte-dello-châssis-collegata-alla-rete.
Parte-del-chasis-conectada-a-la-red



Use isolating mains transformer ~
Utiliser un transformateur isolateur du secteur ~
Trenntrafo verwenden ~
Utilizar un transformador aislador de red ~
Utilizzare un trasformatore per isolarvi dalla rete

ADJUSTMENTS~REGLAGES~EINSTELLUNGEN~REGOLAZIONE~AJUSTES

U-Sys

PP180

Standard-TV~Settings:

=50%

TVto~AV1~Black-test-pattern

V=

DP+110

TUBE NAME	DESCRIPTION	Usys jumper	Usys
A66EHJ43X12	→4/3-28°-MP	JP912	134V→+0.1V
A66EGD038X322	→4/3-29°-SF	JP912	137V→+0.1V
A66EJZ011X121	→4/3-29°-XF	JP912	137V→+0.1V
W66EGV023X522	→16/9-28°-SF	JP912	137V→+0.1V
W76EGV023X522	→16/9-32°-SF	JP912	137V→+0.1V
W66EJY011X121	→16/9-28°-XF	JP912	137V→+0.1V
W76EJY011X121	→16/9-32°-XF	JP912	137V→+0.1V

U-G2

SERVICE
MODE

SERVICE
MODE

G2-potentiometer-
SCREEN

-Select-and-enable-the"G2-Alignment"item-in-VIDEO-menu-of-the-Service-Mode-the-displayed-will-change-to-gray-black-OSD-screen.
The-following-adjustments-are-best-carried-in-semi-darkness:
-Adjust-the-SCREEN-potentiometer(LL008)so-that-thetrace-lines-are-just-visible.
-Now-carefully-adjust-the-SCREEN-potentiometer-until-thetrace-lines-just-become-invisible.
-Press-any-RCU-key-to-leaver-the-G2-alignment.
Note-If-the-G2-values-set-too-low-the-chassis-will-display-error-code-26(tube-does-not-get-warm-in-time).

-Sélectionner-et-valider-le-réglage"G2-Alignment"dans-le-menu-Vidéo-de-Service-Mode-l'écran-devient-totalement-noir.
En-obscurité:
-Régler-le-potentiomètre"SCREEN"(LL008)pour-apercevoir-le-retour-des-lignes.
-Régler-ensuite-le-potentiomètre"SCREEN"pour-rendre-juste-invisibles-les-lignes-de-retour.
-Appuyer-sur-une-des-touches-de-la-télécommande-pour-sortir-du-mode-G2-Alignment.
Note:-En-cas-de-réglage-G2-trop-faible-le-chassis-passe-en-code-panne-26(absence-de-l'information-tube-chaud.

-Wählen-Sie-im-Service-Mode-im-Menü-VIDEO-die-Funktion"G2-Alignment"an-der-Bildschirm-wird-schwarz-für-folgende-Einstellungen-sollten-in-einem-abgedunkelten-Raum-vorgenommen-werden.
-Stellen-Sie-den-Einsteller-SCREEN(am-OST-LL008)so-ein-dass-Rücklaufstreifen-sichtbar-werden.
-Stellen-Sie-den-Einsteller-SCREEN-so-ein-dass-die-Rücklaufstreifen-gerade-un-sichtbar-werden.
-Drücken-Sie-gene-die-Taste-auf-der-Fernbedienung-um-den-G2-Abgleich-zu-verlassen.
Achtung-Wenn-die-Schirmgitter-(G2)-Einstellung-zu-niedrig-ist,kann-der-Fehlercode-26(Bildrohr-nicht-rechtzeitig-aufgeheizt)-angezeigt-werden.

Selezione-e-abilitare"G2-Alignment"interno-al-menu-VIDEO-del-Service-Mode-Verrà-visualizzato-uno-schermo-nero.
In-condizione-combiente-scuro.
Regolare-il-potenzimetro-SCREEN(LL008)per-rendere-visibili-le-tracce-sullo-schermo
Regolare-il-potenzimetro-SCREEN-per-eliminare-le-tracce-sullo-schermo
Premere-un-tasto-della-comando-per-abbandonare-G2-alignment.
NOTA-se-la-regolazione-della-tensione-G2-è-troppo-bassa-il-telaio-visualizzerà-il-codice-26(il-tubo-non-raggiunge-la-temperatura-e-tempo-richiesto)

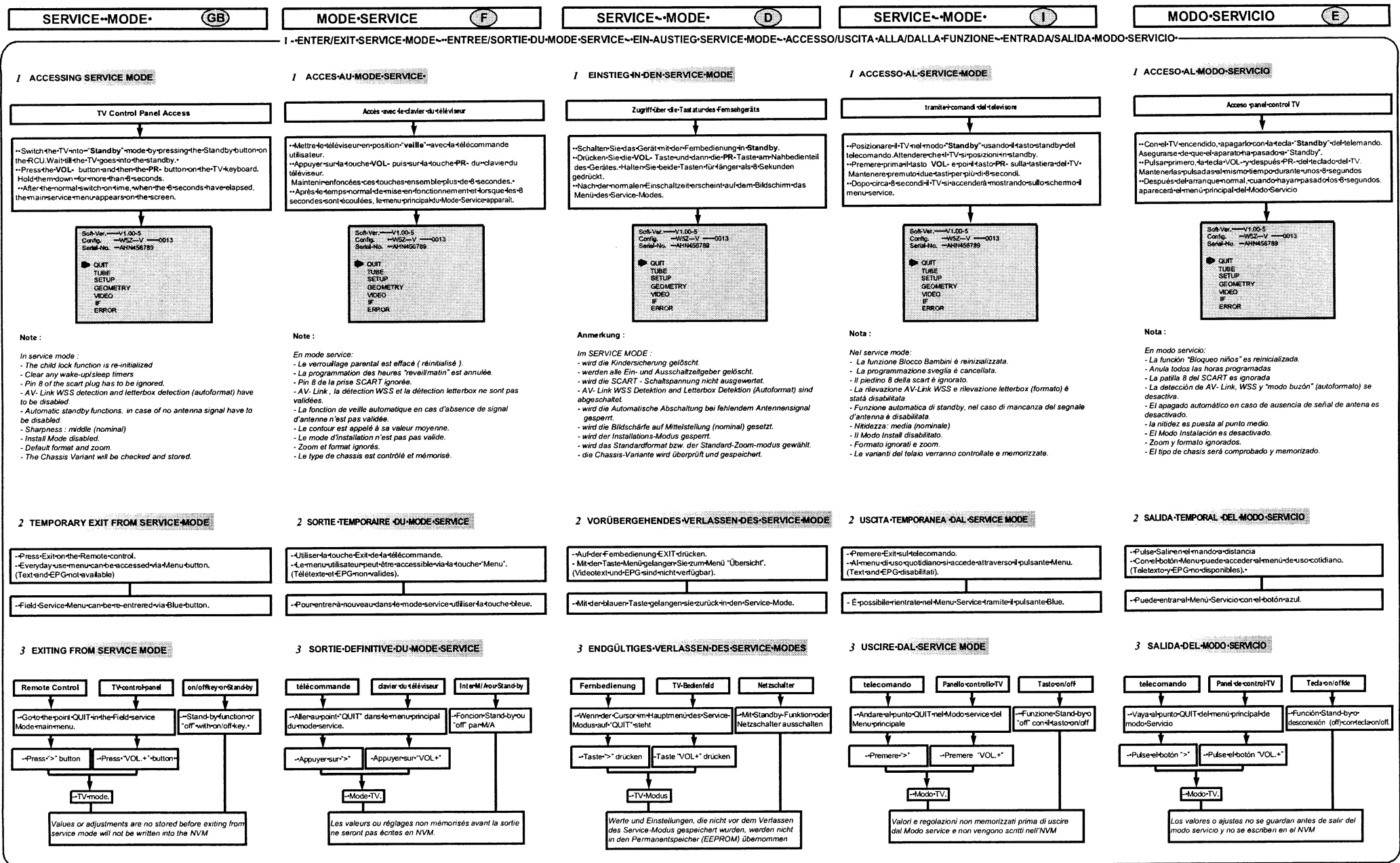
-Seleccionar-y-validar-la-función-del"ajuste-G2"en-el-menü-VIDEO-del-Modo-Servicio-La-pantalla-se-pondrá-oscura-y-el-OSD-pasará-a-color-negro.
Cuando-esté-oscura:
-Ajustar-el-potenciómetro SCREEN(LL008)hasta-hacer-visibles-las-líneas-de-retrazado.
-Ajustar-el-potenciómetro SCREEN-justo,hasta-hacer-invisibles-las-líneas-de-retrazado.
-Pulsar-cualquier-tecla-del-telemando-para-salir-del-ajuste-de-G2.
Nota:-Si-el-valor-del-ajuste-de-G2-es-muy-bajo-el-chasis-puede-indicar-el-código-de-error-26(TRC-no-se-calienta-en-el-tiempo-establecido)

FOCUS

FOCUS

Test-pattern
(standard-values)

Sharp picture

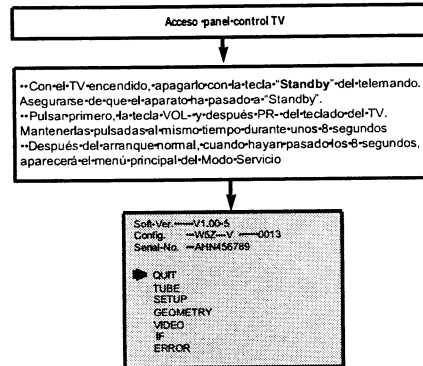


MODO-SERVICIO

E

O-SERVICIO

1 ACCESO-AL-MODO-SERVICIO



Nota:

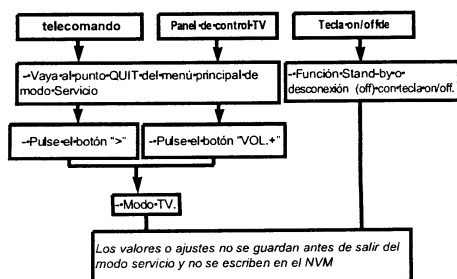
- En modo servicio:
- La función "Bloqueo niños" es reiniciada.
 - Anula todas las horas programadas.
 - La patilla 8 del SCART es ignorada.
 - La detección de AV-Link, WSS y "modo buzón" (autoformato) se desactiva.
 - El apagado automático en caso de ausencia de señal de antena se desactiva.
 - la nitidez es puesta al punto medio.
 - El Modo Instalación es desactivado.
 - Zoom y formato ignorados.
 - El tipo de chasis será comprobado y memorizado.

2 SALIDA-TEMPORAL-DEL-MODO-SERVICIO

-Pulse Salir en el mando a distancia.
 -Con el botón-Menu puede acceder al menú de uso cotidiano.
 (Teletexto y EPG no disponibles).

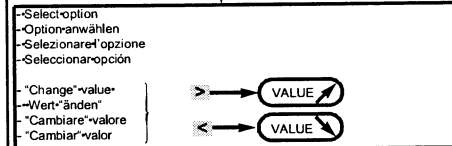
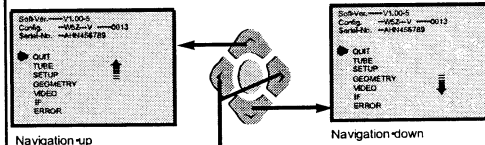
-Puede entrar al Menú-Servicio con el botón azul.

3 SALIDA-DEL-MODO-SERVICIO

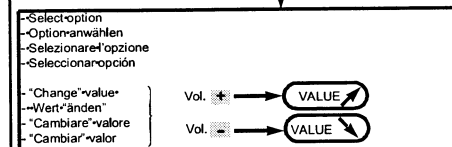
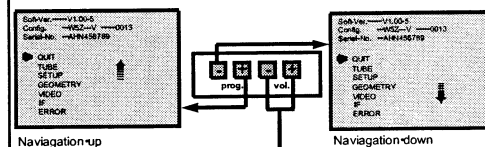


II -NAVIGATION-INSIDE-THE-SERVICE-MODE-DEPLACEMENT-DANS-LE-MODE-SERVICE SUCHE-IN-SERVICE-MODE-OPZIONI-NEL-SERVICE-MODE-BUSQUEDA-EN-MODO-SERVICIO

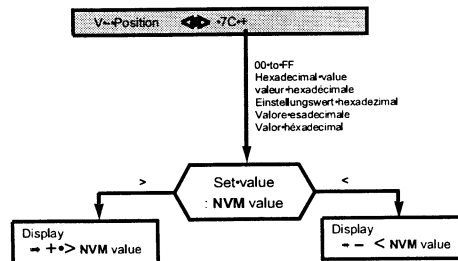
1 REMOTE-CONTROL-TELECOMMANDE-FERNBEDienung TELECOMANDO-MANDO-A-DISTANCIA



2 TV-CONTROL-PANEL-CLAVIER-TV-TASTATUR-DES FERNSEHGERÄTS-COMANDI-DEL-TELEVISORE



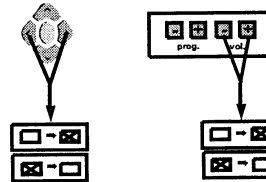
3 DISPLAYING THE VALUE OF THE SETTING-AFFICHAGE-DES VALEURS-ANZEIGE-DES-EINSTELLUNGSWERTE VISUALIZZAZIONE-DEL-VALORE-DELLA-REGOLAZIONE- VISUALIZACION-DEL-VALOR-DE-AJUSTE



4 TOGGLE-FUNCTIONS-VALIDATION-DES-FONCTIONS EIN-UND-AUSSCHALT-FUNKTIONEN-FUNZIONI-DI COMMUTAZIONE-FUNCION-COMMUTACION

To enable a function check the box.
 Pour valider une fonction cocher la case correspondante.
 Zum Implementieren einer Funktion das Kontrollkästchen aktivieren (ankreuzen).
 Per implementare una funzione di verifica, (vistare) la casella.
 Para poner en funcionamiento una función verifique (señale) la casilla.

Implemented function No implemented function



5 STORING VALUES IN MEMORY-MEMORISATION-DES VALEURS-SPEICHERN-DEr-WERTE-MEMORIZZAZIONE VALORI-VALORES-ALMACENADOS-EN-LA-MEMORIA

After setting, the values are stored in NVM.
 Après réglages les valeurs sont mémorisées en NVM.
 Nach dem Einstellen werden die Werte im NVM gespeichert.
 Dopo la regolazione i valori vengono memorizzati in NVM.
 Después del ajuste, los valores son almacenados en NVM.

The box becomes.
 During alignment, values are temporarily stored in RAM.
 En cours d'alignement les valeurs sont mémorisées temporairement en RAM.
 Während des Abgleichs werden die Werte vorübergehend in RAM gespeichert.
 Durante l'allineamento i valori vengono memorizzati provvisoriamente sulla RAM.
 Durante el alineamiento, los valores son almacenados temporalmente en RAM.

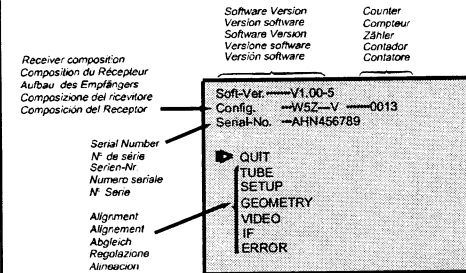
Store
 Copies RAM values into NVM
 Copier la valeur RAM en NVM
 Kopieren des Wertes von RAM nach NVM
 Copiare i valori RAM in NVM
 Copiar valores RAM en NVM

Restore
 Copies all values from NVM into RAM.
 Copie toutes les valeurs des données NVM en RAM
 Kopiert alle NVM-Datenwerte in des RAM
 Copiare tutti i valori da NVM sulla RAM
 Copiar todos los valores de NVM a RAM

Default
 All the default values of a page in use are stored in RAM.
 L'ensemble des valeurs par défaut d'une page courante est chargé en RAM.
 Sämtliche Standardwerte der aktuellen Seite werden in RAM geladen.
 Tutti i valori di default di una pagina in uso vengono memorizzati sulla RAM.
 Todos los valores por defecto de la página en curso están almacenados en RAM.

III -LITE-MENU-FOR-FIELD-SERVICE-MODE-- MENUS-DU-MODE-SERVICE

1 MAIN-MENU-MENU-PRINCIPAL



TV-CONFIGURATION-CONFIGURATION-DU-TV-GERÄTE-KONFIGURATION- CONFIGURAZIONE-DEL-TV-CONFIGURACIÓN-Y-TV

Config.: WSZ-V-

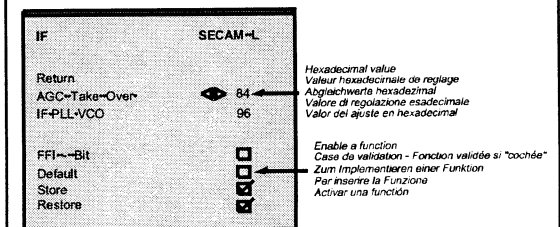
Character 1: Tube type: "A" = 4/3, "W" = 16/9
 Character 2: Teletext external memory detected:
 "T" = 128 page, "N" = not (only internal memory)
 Character 3: Ambient Sensor: "S" = detected, "N" = not
 (not ambient sensor on CC20 step 1)
 Character 4: Chassis variant: "N" = Nicam, "V" = Virtual Dolby, "D" = Dolby prologic
 Character 5: Noise Reduction up conversion memory detected: "N" = detected
 "N" = not
 Character 6: not used / spare
 Character 7: not used / spare

SERIAL-N° A15..

Character 1: Factory: "A" = Angers, "B" = Tarancon, "Z" = Zyrardow
 Character 2: Year: "H" = 1996, "J" = 1997 etc. (International code UTEC90511)
 Character 3: Month, from 1 = January to 9 = September, "O" = October, "N" = November
 "D" = December.
 Character 4: "Serial-N°".

TIME-COUNTER-COMPTeur-DE-TEMPS-ZÄHLER-CONTATORE-CONTADOR
 The counter indicates the TV's number of service hours. It counts from 0 to 65535 hours.
 The display is hexadecimal.
 Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.
 Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb ist. Die Anzeige ist hexadécimale.
 Il contatore indica il numero di ore di servizio del TV. Può contare da 0 a 65535. La visualizzazione è esadecimale.
 El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU-SOUS-MENU



ALIGNMENT-PROCEDURE--PROCESSUS-DE-REGLAGES--ABGLEICH--VISUALIZZAZIONE-DEL-VALORE-DELLA-REGOLAZIONE--PROCEDIMENTO-DE-ALINEACION

TUBE

Return
Tube type
Store
Restore

W76GEV

SETUP

Return
Clear Progs.
Std. Sound Preset
Brand
Kbd. Config.
Subwoofer
Feature Pack
Pict. Rotate
Bus Quiet
WSS
Default
Store
Restore

Thomson
Default

TUBE

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service-Modus erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenü. El menü Field Service Mode aparece.
Press <+>: remote control; Vol. +/-: TV keyb.

Tube type

After replacing the NVM, the correct tube type number must be entered (8 characters). Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list. Definit le tube exact apres changement de NVM.
Les nouvelles valeurs de tubes (avec video et geometrie) sont actives de suite.
Les parametres de video et de geometrie sont charges en NVM lorsque STORE est selectionné. Voir liste ci-dessous.
Nach dem Tausch des NVM (EEPROM) muß der richtige Bildröhrtyp eingegeben werden. Es werden dann sofort die entsprechenden Geometrie- und Video-Defaultwerte aktiviert. Variable Geometrie- und Videowerte müssen mit "STORE" in das NVM geschrieben werden. Liste der Röhren: siehe unten.
Definire il tubo appropriato dopo aver cambiato la NVM; I valori per il nuovo tipo di tubo (con video e geometria) sono immediatamente attivi. I parametri per video e geometria variabili vengono immessi nella NVM quando viene selezionata la funzione Store. Si veda la lista dei tubi riportata sotto.
Definir el tubo correcto después de haber cambiado el NVM. Los nuevos valores de tipo de tubo (con la video y la geometria por defecto) se activan inmediatamente. Los parámetros variables de geometria y video se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

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Nach dem Tausch des NVM (EEPROM) muß der richtige Bildröhrtyp eingegeben werden. Es werden dann sofort die entsprechenden Geometrie- und Video-Defaultwerte aktiviert. Variable Geometrie- und Videowerte müssen mit "STORE" in das NVM geschrieben werden. Liste der Röhren: siehe unten.
Definire il tubo appropriato dopo aver cambiato la NVM; I valori per il nuovo tipo di tubo (con video e geometria) sono immediatamente attivi. I parametri per video e geometria variabili vengono immessi nella NVM quando viene selezionata la funzione Store. Si veda la lista dei tubi riportata sotto.
Definir el tubo correcto después de haber cambiado el NVM. Los nuevos valores de tipo de tubo (con la video y la geometria por defecto) se activan inmediatamente. Los parámetros variables de geometria y video se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

Tube type

After replacing the NVM, the correct tube type number must be entered (8 characters). Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list. Definit le tube exact apres changement de NVM.
Les nouvelles valeurs de tubes (avec video et geometrie) sont actives de suite.
Les parametres de video et de geometrie sont charges en NVM lorsque STORE est selectionné. Voir liste ci-dessous.
Nach dem Tausch des NVM (EEPROM) muß der richtige Bildröhrtyp eingegeben werden. Es werden dann sofort die entsprechenden Geometrie- und Video-Defaultwerte aktiviert. Variable Geometrie- und Videowerte müssen mit "STORE" in das NVM geschrieben werden. Liste der Röhren: siehe unten.
Definire il tubo appropriato dopo aver cambiato la NVM; I valori per il nuovo tipo di tubo (con video e geometria) sono immediatamente attivi. I parametri per video e geometria variabili vengono immessi nella NVM quando viene selezionata la funzione Store. Si veda la lista dei tubi riportata sotto.
Definir el tubo correcto después de haber cambiado el NVM. Los nuevos valores de tipo de tubo (con la video y la geometria por defecto) se activan inmediatamente. Los parámetros variables de geometria y video se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

TUBE NAME	LIST	DESCRIPTION
A66EHJ43X12	A66EHJ	43 28" MP(1)
A66EGD038X322	A66EGD	43 28" SF(2)
A66EJZ011X121	A66EJZ	43 29" XF(2)
A66LPQ356X99	A66LPQ	43 29" XF(3)
A80EJA16X120	A80EJA	43 33" MP(2)
A90AFX14X12	A90AFX	43 37" MP(2)
W66GV023X522	W66GV	16/9 28" SF(2)
W66LPQ356X99	W66LPQ	16/9 28" SF(3)
W66EJY011X121	W66EJY	16/9 28" XF(2)
W76GEV023X522	W76GEV	16/9 32" SF(1)
W76EJY011X121	W76EJY	16/9 32" XF(2)
W76LPF356X99	W76LPF	16/9 32" SF(4)

- (1): AK, Coty-M
(2): Invar, DF-II gun, BSMV, NS, Extra Flat
(3): Invar, DF-II gun, BSMV, NS, Extra Flat
(4): Invar, DF-III gun, BSMV, NS

After setting Store (+) ✓

SETUP

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service-Modus erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenü. El menü Field Service Mode aparece.
Press <+>: remote control; Vol. +/-: TV keyb.

Clear Prog.

Clears all programs stored in memory and resets all picture and sound settings to the factory defaults. The AUTO-INSTALL (out of factory) mode can be initiated by long press (>2.5s.) on the selection button.
Efface tous les programmes mémorisés. Valeurs SON+IMAGES: valeurs usines. Fonction auto-installation: longue pression (>2.5s.) sur la touche de sélection.
Löscht alle Programmpunkte und setzt alle Bild- und Töneinstellungen auf Fabrikwerte zurück. Der AUTO-INSTALL-Modus kann durch einen langen Knopfdruck (>2.5s.) initialisiert werden.
Cleara tota programă stocată în memorie și resetează toate setările de imagine și sunet la valorile din fabrică. Raportare a TV la modul de selecție: presiune prelungită (>2.5s.) asupra pulsantului de selecție.
Programa de borrado. Borrado de todos los programas almacenados en memoria. Valores analógicos de imagen y sonido de fábrica. Reporte a TV al modo de selección: presión prolongada (>2.5s.) sobre el pulsante de selección.

Std. Sound Preset

Sets the default value for the Standard Sound Preset. Factory adjusted.
Reserve au réglage usine.
Reserviert für Fabrikeinstellungen.
Riservato alla regolazione di fabbrica.
Ajuste reservado fábricas.

Brand

Set the "Brand": Thomson, Telefunken, Other.
Factory adjusted.
Réserve au réglage usine.
Reserviert für Fabrikenstellungen.
Riservato alla regolazione di fabbrica.
Ajuste reservado fábricas.

Kbd. Config.

Factory adjusted.
Réserve au réglage usine.
Reserviert für Fabrikenstellungen.
Riservato alla regolazione di fabbrica.
Ajuste reservado fábricas.

Subwoofer

Enable the subwoofer on equipped set.
Validation du Subwoofer sur les appareils équipés.
Einschalten des Subwoofers (wenn vorhanden).
Abilita il subwoofer negli apparecchi equipaggiati.
Validación de que existe el subwoofer.

Subwoofer enable Subwoofer disable

SETUP

Feature Pack

Enables or disables the option to decode and display EPG program data, the Graphic Equalizer, Picture Presets and Sound Presets features (in user menu).
Validation ou inhibition du décodage/affichage des données du programme EPG, de l'égaliseur graphique, des pré-réglages son et image dans le menu utilisateur.
Ein- und Abschalten der Optionen Decodierung und Anzeige der EPG-Programmdaten, Grafischer Equalizer, Bildvoreinstellungen und Tonvoreinstellungen (in den Benutzermenüs).
Press <+>: remote control; Vol. +/-: TV keyb.

Picture Rot

Enables the "Earth Field Correction" function (EFC) on ICC20 16/9 and some large screen sets by adding a special bargraph in the "personal settings" menu (user menus). It is necessary to validate this function if the EFC correction circuit is inserted.
Valide la fonction "correction de champ magnétique terrestre" (EFC) sur les chassis ICC20 16/9 et les appareils 4/3 grand écran par addition d'un bargraphe spécifique dans le menu "réglages personnels" (menu utilisateur). Cette fonction doit être validée lorsque les circuits de correction "EFC" sont insérés.
Freigabe der Erdfeldkorrektur (EFC) bei ICC20 16/9 und einigen 4/3 Geräten. Im Menü "Eigene Einstellungen" (Menü "Installation") wird ein zusätzlicher Anzeigebalken eingeblendet. Nach dem Einbau des EFC-Moduls ist diese Funktion zu aktivieren.
Attiva la funzione "Correzione del campo magnetico terrestre" (EFC) sui chassis ICC20 16/9 e alcuni grandi schermi 4/3, aggiungendo una speciale barra grafica nel menu di "Menu Principale".
Se il circuito di correzione è montato, è necessario convalidare questa funzione.
Valida la función "corrección del campo magnético terrestre" (EFC) en los chasis ICC20 y algunos grandes screens 4/3 añadiendo una barra gráfica en el menú "Ajustes personales". Es necesario validar esta función si el circuito de corrección EFC está montado.

WSS

Automatic detection of DOLBY surround sound and 16/9 format pictures via Teletext line number 23 is valid on all programmes.
Détection automatique du son surround DOLBY et du format 16/9 via la ligne 23 du Teletext. Valide pour tous programmes.
WSS (nur bei 16/9 oder Dolby)
Auswertung der Zeile 23 zur automatischen Format- und Dolbyumschaltung.
Identificación "auto-Dolby" y "format 16/9" via teletexto a la rila 23. La selección de WSS Processing vale para todos los programas.

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Auswertung der Zeile 23 zur automatischen Format- und Dolbyumschaltung.
Identificación "auto-Dolby" y "format 16/9" via teletexto a la rila 23. La selección de WSS Processing vale para todos los programas.

After setting Store (+) ✓

SETUP

Bus Quiet

In "Bus Quiet", the NVM can be read, modified and reprogrammed by means of a NVM Programmer.
To access "Bus Quiet": Long press ">". The TV should remain in "Bus Quiet" mode until either Exit, Left, Right, Up/Down or Standby keys on the RCU or local keyboard are pressed, at which point the TV should carry out a warmstart in order to prevent differences between the NVM and RAM contents.
After returning from Bus Quiet, the software checks the NVM content.
If it is not valid, the software perform a new default writing of the NVM content.
En mode bus quiet la NVM peut être lue, modifiée et reprogrammée.
Accès au mode Bus quiet: Longue pression ">". Utiliser l'une des touches Exit, Gauche, Droite Haut, Bas, standby ou une des touches du clavier pour sortir le téléviseur du mode bus quiet.
A partir de ce point de sortie le démarrage du téléviseur s'effectue à chaud pour éviter toute différence des contenus RAM et NVM. En sortie de mode bus quiet, le logiciel contrôle le contenu de la NVM.
S'il n'est pas correct le logiciel exécute une nouvelle écriture par défaut de celle-ci.
Im "Bus Quiet"-Modus kann der Inhalt des NVM mittels eines externen NVM-Programmiergerätes auslesen, geändert oder neu programmiert werden. Um auf den "Bus Quiet"-Modus zu gelangen: Druck auf ">" aktivieren. Das Gerät bleibt solange im "Bus Quiet"-Modus, bis durch Druck auf die EXIT-, LINKS-, RECHTS-, HOCH-, RUNTER- oder STANDBY-Taste (am Gerät oder auf der Fernbedienung) ein Warmstart des Gerätes veranlaßt wird, um unterschiedliche Daten in RAM und NVM zu vermeiden. Es folgt ein Software-Check des NVM-Inhaltes. Sollte dieser nicht gültig sein, wird der Inhalt mit Default-Werten überschrieben.
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After setting Store (+) ✓

GEOMETRY

Return
Display Mode
V-Slope
V-Amplitude
V-Position
V-Linearity
H-Delay
H-Position
H-Amplitude
EW-Trapezium
EW-Amplitude
EW-Corner
H-Parallel
EW-Symmetry
Breathing
Default
Store
Restore

16/9 Zoom 0*

GEOMETRY

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service-Modus erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenü. El menü Field Service Mode aparece.
Press <+>: remote control; Vol. +/-: TV keyb.

Display Mode

Complete geometry adjustment is done according to chassis tube format 4/3 zoom 0 mode for 4/3 tubes, 16/9 zoom 0 mode for 16/9 tubes. In all other modes it is only necessary to adjust some few registers.
The actual format mode has to be displayed in the Geometry Service mode. It has to be possible to change the format during the geometry alignment without leaving the Service mode.
The available display modes depend on the picture tube format.
Tubo 4/3: 2 modos: 4/3 y 16/9
Tubo 16/9: 3 modos: 16/9 estándar, 4/3 Zoom 0, Cinéma
The menu shows only the registers which have to be aligned for the actual picture format currently displayed.
Les réglages complets de géométrie sont faits dans le format du tube correspondant l'appareil. Mode 4/3 zoom 0 pour les tubes 4/3, 16/9 zoom 0 pour les tubes 16/9. Dans les autres modes seuls quelques réglages nécessitent un réglage. Le format de réglage doit être affiché dans le menu de géométrie du mode service. Il est possible de changer le format sans quitter le mode service.
Différents types d'affichage disponibles:
Tubo 4/3: 2 modos: 4/3 y 16/9
Tubo 16/9: 3 modos: 16/9 estándar, 4/3 Zoom 0, Cinéma
Le menu correspond montre seulement les registres à régler.
Ein vollständiger Geometrie-Abgleich ist bei 4/3-Röhren nur in der Zoomstufe 4/3-Zoom 0 und bei 16/9-Röhren nur in der Zoomstufe 16/9-Zoom 0 notwendig. In allen anderen Zoomstufen sind eine geringere Anzahl von Einstellungen vorzunehmen. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Die untere Bildhälfte wird dunkel. Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet. Verlassen Sie die Funktion "V-Slope". Speisen Sie ein Gittertestbild ein. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile. Abbandonare la riga "V-slope". Posizionare il monoscopio Effettuare le regolazioni di geometria descritte in precedenza. Memorizzare.
Applique une carte de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla. Seleccione en el menú, la línea "V-Slope". La mitad inferior de la pantalla se pondrá oscura. Ajuste "V-Slope" justo hasta que la línea horizontal sea invisible. Cambiar la carta de ajuste a "cuadrícula" y efectuar los ajustes de geometría descritos a continuación. Antes de salir, memorizar con "Store"

Display Mode

Complete geometry adjustment is done according to chassis tube format 4/3 zoom 0 mode for 4/3 tubes, 16/9 zoom 0 mode for 16/9 tubes. In all other modes it is only necessary to adjust some few registers.
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Le menu correspond montre seulement les registres à régler.
Ein vollständiger Geometrie-Abgleich ist bei 4/3-Röhren nur in der Zoomstufe 4/3-Zoom 0 und bei 16/9-Röhren nur in der Zoomstufe 16/9-Zoom 0 notwendig. In allen anderen Zoomstufen sind eine geringere Anzahl von Einstellungen vorzunehmen. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Die untere Bildhälfte wird dunkel. Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet. Verlassen Sie die Funktion "V-Slope". Speisen Sie ein Gittertestbild ein. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile. Abbandonare la riga "V-slope". Posizionare il monoscopio Effettuare le regolazioni di geometria descritte in precedenza. Memorizzare.
Applique une carte de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla. Seleccione en el menú, la línea "V-Slope". La mitad inferior de la pantalla se pondrá oscura. Ajuste "V-Slope" justo hasta que la línea horizontal sea invisible. Cambiar la carta de ajuste a "cuadrícula" y efectuar los ajustes de geometría descritos a continuación. Antes de salir, memorizar con "Store"

Display Mode

Complete geometry adjustment is done according to chassis tube format 4/3 zoom 0 mode for 4/3 tubes, 16/9 zoom 0 mode for 16/9 tubes. In all other modes it is only necessary to adjust some few registers.
The actual format mode has to be displayed in the Geometry Service mode. It has to be possible to change the format during the geometry alignment without leaving the Service mode.
The available display modes depend on the picture tube format.
Tubo 4/3: 2 modos: 4/3 y 16/9
Tubo 16/9: 3 modos: 16/9 estándar, 4/3 Zoom 0, Cinéma
The menu shows only the registers which have to be aligned for the actual picture format currently displayed.
Les réglages complets de géométrie sont faits dans le format du tube correspondant l'appareil. Mode 4/3 zoom 0 pour les tubes 4/3, 16/9 zoom 0 pour les tubes 16/9. Dans les autres modes seuls quelques réglages nécessitent un réglage. Le format de réglage doit être affiché dans le menu de géométrie du mode service. Il est possible de changer le format sans quitter le mode service.
Différents types d'affichage disponibles:
Tubo 4/3: 2 modos: 4/3 y 16/9
Tubo 16/9: 3 modos: 16/9 estándar, 4/3 Zoom 0, Cinéma
Le menu correspond montre seulement les registres à régler.
Ein vollständiger Geometrie-Abgleich ist bei 4/3-Röhren nur in der Zoomstufe 4/3-Zoom 0 und bei 16/9-Röhren nur in der Zoomstufe 16/9-Zoom 0 notwendig. In allen anderen Zoomstufen sind eine geringere Anzahl von Einstellungen vorzunehmen. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Die untere Bildhälfte wird dunkel. Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet. Verlassen Sie die Funktion "V-Slope". Speisen Sie ein Gittertestbild ein. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile. Abbandonare la riga "V-slope". Posizionare il monoscopio Effettuare le regolazioni di geometria descritte in precedenza. Memorizzare.
Applique une carte de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla. Seleccione en el menú, la línea "V-Slope". La mitad inferior de la pantalla se pondrá oscura. Ajuste "V-Slope" justo hasta que la línea horizontal sea invisible. Cambiar la carta de ajuste a "cuadrícula" y efectuar los ajustes de geometría descritos a continuación. Antes de salir, memorizar con "Store"

Display Mode

Complete geometry adjustment is done according to chassis tube format 4/3 zoom 0 mode for 4/3 tubes, 16/9 zoom 0 mode for 16/9 tubes. In all other modes it is only necessary to adjust some few registers.
The actual format mode has to be displayed in the Geometry Service mode. It has to be possible to change the format during the geometry alignment without leaving the Service mode.
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The menu shows only the registers which have to be aligned for the actual picture format currently displayed.
Les réglages complets de géométrie sont faits dans le format du tube correspondant l'appareil. Mode 4/3 zoom 0 pour les tubes 4/3, 16/9 zoom 0 pour les tubes 16/9. Dans les autres modes seuls quelques réglages nécessitent un réglage. Le format de réglage doit être affiché dans le menu de géométrie du mode service. Il est possible de changer le format sans quitter le mode service.
Différents types d'affichage disponibles:
Tubo 4/3: 2 modos: 4/3 y 16/9
Tubo 16/9: 3 modos: 16/9 estándar, 4/3 Zoom 0, Cinéma
Le menu correspond montre seulement les registres à régler.
Ein vollständiger Geometrie-Abgleich ist bei 4/3-Röhren nur in der Zoomstufe 4/3-Zoom 0 und bei 16/9-Röhren nur in der Zoomstufe 16/9-Zoom 0 notwendig. In allen anderen Zoomstufen sind eine geringere Anzahl von Einstellungen vorzunehmen. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Die untere Bildhälfte wird dunkel. Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet. Verlassen Sie die Funktion "V-Slope". Speisen Sie ein Gittertestbild ein. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile. Abbandonare la riga "V-slope". Posizionare il monoscopio Effettuare le regolazioni di geometria descritte in precedenza. Memorizzare.
Applique une carte de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla. Seleccione en el menú, la línea "V-Slope". La mitad inferior de la pantalla se pondrá oscura. Ajuste "V-Slope" justo hasta que la línea horizontal sea invisible. Cambiar la carta de ajuste a "cuadrícula" y efectuar los ajustes de geometría descritos a continuación. Antes de salir, memorizar con "Store"

After setting Store (+) ✓

GEOMETRY

Return
Display Mode
V-Slope
V-Amplitude
V-Position
V-Linearity
H-Delay
H-Position
H-Amplitude
EW-Trapezium
EW-Amplitude
EW-Corner
H-Parallel
EW-Symmetry
Breathing
Default
Store
Restore

16/9 Zoom 0*

GEOMETRY

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service-Modus erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenü. El menü Field Service Mode aparece.
Press <+>: remote control; Vol. +/-: TV keyb.

Display Mode

Complete geometry adjustment is done according to chassis tube format 4/3 zoom 0 mode for 4/3 tubes, 16/9 zoom 0 mode for 16/9 tubes. In all other modes it is only necessary to adjust some few registers.
The actual format mode has to be displayed in the Geometry Service mode. It has to be possible to change the format during the geometry alignment without leaving the Service mode.
The available display modes depend on the picture tube format.
Tubo 4/3: 2 modos: 4/3 y 16/9
Tubo 16/9: 3 modos: 16/9 estándar, 4/3 Zoom 0 y Cinéma
El menú correspondiente mostrará sólo los ajustes a efectuar.
V-Slope
- Apply a test pattern signal to the TV with a single horizontal and vertical line on the screen.
- Select the "VS" line of the menu. The bottom half of the screen will go black.
- Adjust VS until the centre line of the pattern is just invisible.
- Leave the line "V-Slope".
- Switch the test pattern signal to the crosshatch geometry pattern.
- Perform the geometry adjustments described below.
Appliquer une mire de barres avec seulement une ligne blanche horizontale en milieu de l'écran.
Sélectionner la ligne "V-Slope". La moitié basse de l'écran devient noire.
Aligner "V-Slope" pour que la ligne médiane soit à peine non visible.
Commencer la mire en mode de réglage de géométrie (quadrillage).
Effectuer les réglages de géométrie.
Speisen Sie ein Testbild mit einem horizontalen Strich in der Bildmitte ein.
Wählen Sie im Menü die Funktion "V-Slope" an.
Die untere Bildhälfte wird dunkel.
Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet.
Verlassen Sie die Funktion "V-Slope".
Speisen Sie ein Gittertestbild ein.
Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor.
Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Die untere Bildhälfte wird dunkel. Stellen Sie "V-Slope" so ein, daß die Mittellinie fast verschwindet. Verlassen Sie die Funktion "V-Slope". Speisen Sie ein Gittertestbild ein. Nehmen Sie die Geometrie-Einstellungen wie nebenstehend beschrieben vor. Appliquen un monoscope avec une ligne blanche horizontale au centre de l'écran. Sélectionner la ligne "V-slope" du menu. La partie basse dello schermo viene oscurata.
Allineare la "Vertical Slope" in modo che la linea centrale sia appena visibile. Abbandonare la riga "V-slope". Posizionare il monoscopio Effettuare le regolazioni di geometria descritte in precedenza. Memorizzare.
Applique une carte de ajuste con sólo una línea blanca horizontal y una vertical en el centro de la pantalla. Seleccione en el menú, la línea "V-Slope". La mitad

GEOMETRY **

Return
Display Mode 4:3 Zoom 0**

Breathing
Default
Store
Restore

7F

VIDEO SECAM-L

Return
Whitepoint R 78
Whitepoint G 4C
Whitepoint B 48
Peak White 78
G2 Alignment 78
Scale Brightness 9A
Full White 4/3 50
Black Offset R 70
Black Offset G 70
Drive Level BC
Scale Contrast DO
Default
Store
Restore

Color standard or RGB is autodetected and displayed opposite the displayed opposite the menu title

IF SECAM-L

Return
AGC Take Over 84
IF PLL VCO 96

FFI - Bit
Default
Store
Restore

ERROR-CODES

Return
Erase Error Codes

Code Counter

25	00021:43
00	00021:35
14	00023:11
14	00017:50
27	00017:50

GEOMETRY

Breathing
EHT-compensation

Factory adjusted
Réserve au réglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas

VIDEO PAL

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service-Modes erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenú. El menú Field Service Mode aparece.
Press </>: remote control; Vol. +/-: TV keyb.

VIDEO PAL

Scal. Brightness

standard

Grey scale test pattern
white=100%

Black

IF

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service e-Modes erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenú. El menú Field Service Mode aparece.
Press </>: remote control; Vol. +/-: TV keyb.

ERROR-CODE

Return
Closes the sub-menu and returns to the "Main Service Menu".
Retourne au menu principal.
Schließt das Untermenü, und das Haupt-Menü des Service e-Modes erscheint.
Chiude il sottomenu e fa apparire il menu principale Service Mode.
Cierra el submenú. El menú Field Service Mode aparece.
Press </>: remote control; Vol. +/-: TV keyb.

GEOMETRY **

Return
Display Mode Cinema**

H-Position 64
H-Amplitude C4
EW-Amplitude 84
EW-Trapezium 54

Breathing
Default
Store
Restore

7F

VIDEO PAL

Whitepoint R*
Whitepoint G*
Whitepoint B*
Peak-White**

standard
Grey scale test pattern
white=50%
Amplitude: 350mVWB
RF-PAL
RF-SECAM
AV1- RGB

standard
Peak white test pattern
white=100%
RF-BG, RF-L, AV1- RGB
Colourimeter

Type	Type	Type	Type
A98EHJ	380	W66EQV	480
A98EGD	400	W66LPO	450
A98FJZ	-	W66EJY	-
A98EQ	-	W76EQV	380
A98EJA	350	W76EJY	-
A90AFX	-	W76LPE	-

VIDEO PAL

Scal. Colour

standard
PAL (then SECAM + RGB)
75% Colour bar test pattern via RF.

Blue Cathode
CRT

Full-White 4/3
Black-Offset R
Black-Offset G
Drive-Level
Scale Contrast

Factory adjusted
Réserve au réglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas

IF

AGC Take-Over

1mV: antenna input of the tuner

- Minimum noise-
- Minimum de bruit
- Minimum Rauschen
- Rumore minimo
- Minimo ruido

IF-PLL-VCO

Adjust IF PLL VCO for "OK" indicating.
Adjust for standard L' and others.

FFI - Bit

Fast Filter (IF / PLL)
Filtre rapide (IF / PLL)
Schnelles filter (ZF / PLL)
Filtro rapido (IF / PLL)

Asia
Europ

ERROR-CODE

Erase Error Codes

Codes

Press </>: remote control; Vol. +/-: TV keyb.

CODE LED-Error-Codes

The last five error codes are stored and displayed as they occur in real time. The most recent error code is displayed on the top line. A repeated top line error code has a real time count updated. There are 35 different error codes, which are signalled by the TV's Standby LED, ranging in value from 10 to 49. The error codes are displayed as two separate digits separated by a suitable pause, then repeated until the either the TV fixes the fault or the TV is repaired. For example Error code 23 will be displayed as 23 24 flashes and a short pause 34 flashes and a long pause

List of Error Codes: see table

Mémoriser cinq derniers codes erreurs et afficher en haut d'écran les plus récents.
35 codes erreurs différents sont signalés par deux chiffres en une séquence spécifique.
Exemple: Code erreur 23 affiché 24 flashes, courte pause 34 flashes, longue pause

Voir ci-contre la liste des codes erreurs

GEOMETRY

H-Position

H-Amplitude

EW-Amplitude

EW-Trapezium

Breathing
EHT-compensation

Factory adjusted
Réserve au réglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas

After-setting Store(+)

VIDEO PAL

G2-Alignment

Display a full screen black OSD
Adjust G2 with SCREEN potentiometer: see adjust table
Ecran totalement noir.
Régler G2 avec le potentiomètre SCREEN: voir tableau des réglages (p.12).
Das Bild wird dunkelgetastet
Gleichen Sie G2 mit dem SCREEN-Potentiometer wie auf Seite 12, beschrieben ab.
Visualizzare uno schermo nero e regolare il potenziometro G2 riferendosi alla tabella regolazione (p.12).
Pantalla totalmente oscura sin OSD. Ajustar la G2 con el potenciómetro SCREEN: ver tabla (p.12).
G2 adjust on
Reset G2-adjust and restores the video menu.

VIDEO PAL

Text Contrast

standard

Adjust Text contrast for V=60V at pin 11 (Blue) of the CRT: 40% V peak white.
Ajuster Text Contrast pour obtenir un niveau de sortie V=60V sur la cathode Bleue du tube (point 11 de la CRT): 40% V peak white.
Stellen Sie mit Text Contrast V=60V an der Blau-Kathode (Pin 11) der Bildröhre ein: 40% Vpeak white.
Regolare il guadagno contrasto televideo per ottenere al catodo del blu un livello pari a V=60V (CRT pin 11): 40% Vpeak white.
Ajuste Text Gain para dejar V=60V en azul del TRC (CRT Patilla 11): 40% Vpeak white

Text Contrast=30

V=60V

CRT-Pin 11

After-setting Store(+)

IF

After-setting Store(+)

ERROR-CODE

Beispiel für die Anzeige über die Kontrolle LED:

Fehlercode 23:
Zweimaliges Blinken der LED, kurze Pause.
Dreimaliges Blinken der LED, lange Pause.
Auflistung der Fehlercodes: siehe Liste

Mémoriser cinq derniers codes erreurs et afficher en haut d'écran les plus récents.
35 codes erreurs différents sont signalés par deux chiffres en une séquence spécifique.
Exemple: Code erreur 23 affiché 24 flashes, courte pause 34 flashes, longue pause

Voir ci-contre la liste des codes erreurs

Note:
**Special menu: 16/9 set
---Menu specific: aparatos 16/9---

Note:
*Adjust-separate for PAL/RF/SECAM-RF and RGB/AV
Whitepoints cannot be aligned in PAL.

**After-PEAK-white adjustment control whitepoints setting.
Repeat the adjustments if necessary.

ERROR-CODES

(GB)

10 Display effective child lock mode
11 Display timer mode
12 Audio-MSP doesn't answer anymore
13 Audio-Dpl doesn't answer anymore
14 TDA9330H doesn't answer anymore
15 TDA9321 doesn't answer anymore
16 DMU0 doesn't answer anymore
17 SAA4956 doesn't answer anymore
18 TDA9178 doesn't answer anymore
19 Tuner doesn't answer anymore
20 I2C Bus is locked
21 I2C Bus data line held low
23 I2C Bus clock line held low
25 Switched 5V not available
26 Tube gets not warm in time
27 Deflection detects >3 times prot
28 Vertical deflection safety is effective
29 Horizontal deflection safety is effective
31 Call with pointer that was not allocated
32 A software-timer has been requested but isn't available yet
34 The NVM chip doesn't answer anymore
35 5V and 8V not available
36 Wrong address passed to the bus-handler
37 Unexpected level on NMI line found
38 Heap full - There is no RAM available for the requested operation
39 I2C Bus data line not recoverable
41 Power down detection TDA9178 (PSI)
42 Power on reset error TDA9320 (HIP)
43 Power on reset error TDA9330 (HOP)
44 NRF bit problem (only factory information)
45 FLS bit problem (only factory information)
46 NHF bit problem (only factory information)
47 NDF bit problem (only factory information)
48 XPR bit problem (only factory information)
49 Problem with bits SXA...D (factory information)

(F)

10 Fonction clef enfant active
11 Mode timer
12 Audio-MSP ne répond plus
13 Audio-Dpl ne répond plus
14 TDA9330H ne répond plus
15 TDA9321 ne répond plus
16 DMU0 ne répond plus
17 SAA4956 ne répond plus
18 TDA9178 ne répond plus
19 Tuner ne répond plus
20 I2C-bus bloqué
21 I2C-bus data forcé au niveau bas
23 I2C-bus clock forcé au niveau bas
25 Le "5V commuté" n'est pas disponible
26 Tube ne chauffe pas à temps
27 Plus que 3-fois la déflexion a détecté une "protection"
28 Sécurité déviation verticale active
29 Sécurité déviation horizontale active
31 Appel par pointeur non alloué
32 Logiciel-timer non disponible
34 NVM (mémoire) ne répond plus
35 5V et 8V non disponibles
36 NVM adresse erronée
37 Niveau incorrect sur la ligne NMI
38 Pile pleine - Il n'y a plus de RAM disponible pour l'opération requise
39 I2C-bus data non récupérable
41 Détection mauvaise alimentation TDA9178
42 Erreur de reset TDA9320
43 Erreur de reset TDA9330
44 Problème bit NRF (information usine seulement)
45 Problème bit FLS (information usine seulement)
46 Problème bit NHF (information usine seulement)
47 Problème bit NDF (information usine seulement)
48 Problème bit XPR (information usine seulement)
49 Problème avec les bits SXA...D (information usine seulement)

(D)

10 Kindersicherung aktiv
11 Weckerfunktion aktiv
12 Audio-MSP antwortet nicht
13 Audio-Dpl antwortet nicht
14 TDA9330H antwortet nicht
15 TDA9321 antwortet nicht
16 DMU0 antwortet nicht
17 SAA4956 antwortet nicht
18 TDA9178 antwortet nicht
19 Tuner antwortet nicht
20 I2C Bus ist blockiert
21 I2C Bus Data ist immer L
23 I2C Bus Clock ist immer L
25 Geschaltete 5V nicht vorhanden
26 Bildrohr ist nicht rechtzeitig aufgeheizt
27 Schutzschaltung hat dreimal ausgelöst
28 Vertikal-Schutzschaltung ist aktiv
29 Horizontal-Schutzschaltung ist aktiv
31 Softwarefehler (nur für Produktionsstätten)
32 Softwarefehler (nur für Produktionsstätten)
34 NVM (EEPROM) antwortet nicht
35 5V und 8V nicht vorhanden
36 Softwarefehler (nur für Produktionsstätten)
37 Unerwarteter Zustand auf NMI-Leitung
38 Softwarefehler (nur für Produktionsstätten)
39 I2C Bus Data-Leitung nicht reaktivierbar
41 Power down detection TDA9178 (PSI)
42 Problem während des Resets TDA9320 (HIP)
43 Problem während des Resets TDA9330 (HOP)
44 NRF Bit Problem (nur für Produktionsstätten)
45 FLS Bit Problem (nur für Produktionsstätten)
46 NHF Bit Problem (nur für Produktionsstätten)
47 NDF Bit Problem (nur für Produktionsstätten)
48 XPR Bit Problem (nur für Produktionsstätten)
49 Problem mit Bits SXA...D (nur für Produktionsst.)

(I)

10 Funzione child lock attiva
11 Modo timer
12 MSP-Audio non risponde
13 DPL-Audio non risponde
14 TDA9330H non risponde
15 TDA9321 non risponde
16 DMU0 non risponde
17 SAA4956 non risponde
18 TDA9178 non risponde
19 Tuner non risponde
20 I2C Bus è bloccato
21 I2C Bus data forzata bassa
23 I2C Bus clock forzata bassa
25 Tensione 5V commutata non disponibile
26 Tubo non trasmette informazione caldo entro il tempo stabilito
27 Deffessione rileva >3 volte protezione
28 Protezione deffessione verticale attiva
29 Protezione deffessione orizzontale attiva
31 Chiamata al pointer non assegnata
32 Logica timer non disponibile
34 L'integrato NVM non risponde
35 5V e 8V non disponibili
36 Indirizzamento NVM errato
37 Livello incorretto sulla linea NMI
38 Pile piena - RAM non disponibile per l'operazione richiesta
39 Linea I2C Bus non recuperabile
41 Rilevazione mancata alimentazione el TDA9178 (PSI)
42 Errore di reset TDA9320 (HIP)
43 Errore di reset TDA9330 (HOP)
44 Problema di bit NRF (informazione solo per fabbrica)
45 Problema di bit FLS (informazione solo per fabbrica)
46 Problema di bit NHF (informazione solo per fabbrica)
47 Problema di bit NDF (informazione solo per fabbrica)
48 Problema di bit XPR (informazione solo per fabbrica)
49 Problema con bit SXA...D (informazione di fabbrica)

(E)

10 Función "bloqueo niños" activa
11 Modo "timer" activado
12 El procesador de audio MSP no responde
13 El DPL de audio no responde
14 El TDA9330H no responde
15 El TDA9321 no responde
16 El DMU0 no responde
17 El SAA4956 no responde
18 El TDA9178 no responde
19 El sintonizador no responde
20 El bus I2C está bloqueado
21 La línea de datos del bus I2C forzada a nivel bajo
23 La línea clock del bus I2C forzada a nivel bajo
25 Faltan los +5V conmutados
26 El TRC no se calienta en el tiempo establecido
27 La deflexión detecta una protección > de 3 veces
28 Seguridad de la deflexión vertical activada
29 Seguridad de la deflexión horizontal activada
31 El puntero no puede encontrar la posición solicitada
32 Una solicitud de "timer" no está disponible
34 La NVM no responde
35 Faltan los 5V y los 8V
36 Dirección errónea solicitada por el bus
37 Encontrado un nivel inesperado en la línea NMI
38 Pila llena. No queda RAM disponible para la operación solicitada
39 Línea de datos del bus I2C no recuperable
41 Detección de fallo en alimentación TDA9178 (PSI)
42 Error de reset en el encendido TDA9320 (HIP)
43 Error de reset en el encendido TDA9330 (HOP)
44 Fallo en el bit NRF (información sólo para fábrica)
45 Fallo en el bit FLS (información sólo para fábrica)
46 Fallo en el bit NHF (información sólo para fábrica)
47 Fallo en el bit NDF (información sólo para fábrica)
48 Fallo en el bit NDF (información sólo para fábrica)
49 Fallo en los bits SXA...D (información sólo para fábrica)

GEOMETRY+MODE+ALIGNMENT

4/3-picture+tube

A ICC20 4/3 set needs a geometry alignment only in the 4/3 Zoom 0 mode. All other formats and zoom mode are calculated.

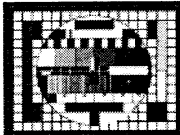
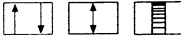
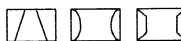
Un chassis ICC20 4/3 ne nécessite des réglages de géométrie que dans le mode 4/3 zoom 0. La géométrie des autres formats et zoom est calculée.

Beim Chassis ICC20 4/3 ist ein Geometrie-Abgleich nur im Bildformat 4/3 Zoom 0 notwendig. Die Werte für alle weiteren Formate und Zoomstufen werden berechnet.

Il telaio ICC20 4/3 richiede l'allineamento solo nel formato 4/3 zoom 0. Tutti gli altri formati zoom sono calcolati.

Un TV ICC20 4/3 sólo necesita ajustar la geometría en modo 4/3 Zoom 0. Todos los otros formatos y modos de zoom, son calculados.

Signal:-4/3-test+pattern

4+3- standard-mode zoom-0		Overscan-V=107%,H=107% 1- Adjust Vertical position and Vertical amplitude 2- Adjust Vertical Slope and linearity  3- Adjust Horizontal Delay, Horizontal Position and Horizontal amplitude  4-Adjust EW Amplitude ,EW Shape and Trapezium, EW Corner,  5-Adjust EW Symmetry and Horizontal parallelogram 
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16/9-picture+tube

A ICC20 16/9 set needs a complete geometry alignment in the 16/9 Zoom 0 mode and additionally an alignment of H-amplitude (104%), EW-Amplitude, H-position and EW-trapezium in Cinerama mode (if fitted). All others formats all others formats and zoom mode are calculated.

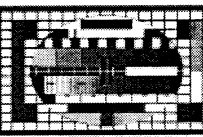
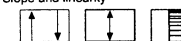
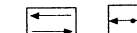
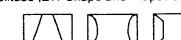
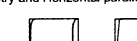
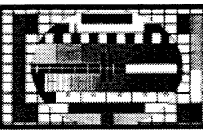
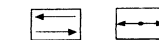
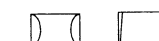
Un chassis ICC20 16/9 ne nécessite un alignement complet des réglages de géométrie que dans le mode 16/9 zoom 0 et en outre des réglages de H-amplitude (104%), EW-Amplitude, H-position et EW-trapèze en mode Cinéma (si les circuits correspondants sont insérés). La géométrie des autres formats et zoom est calculée.

Beim Chassis ICC20 16/9 ist ein vollständiger Geometrie-Abgleich nur im Bildformat 16/9 Zoom 0 notwendig. Wenn das Bildformat Cinerama verfügbar ist, müssen für diesen H-Amplitude (104%),EW-Amplitude, H-Position und EW-Trapezium abgeglichen werden. Die Werte für alle weiteren Formate und Zoomstufen werden berechnet.

Il telaio ICC20 16/9 richiede l'allineamento nel formato 16/9 zoom 0 e un allineamento supplementare dell' Ampiezza H (104%), Ampiezza EW Posizione H e Trapezio EW nel modo Cinerama. Tutte le regolazioni negli altri formati zoom sono calcolate.

Un TV ICC20 16/9 necesita un ajuste completo de geometría en el modo 16/9 zoom 0 e además un ajuste de la anchura horizontal (104%), posición horizontal y amplitud / trapecio E/W en modo "Cinerama" (si está incorporado). Todos los otros formatos y modos de zoom, son calculados.

Signal:-4/3-test+pattern

16/9- standard-mode zoom-0		Overscan-V=107%,H=104% 1- Adjust Vertical position and Vertical amplitude 2- Adjust Vertical Slope and linearity  3- Adjust Horizontal Delay, Horizontal Position and Horizontal amplitude  4-Adjust EW Amplitude ,EW Shape and Trapezium, EW Corner,  5-Adjust EW Symmetry and Horizontal parallelogram 
4+3 CINERAMA-mode		Mode-CINERAMA Overscan-V=114%,H=104% 1- Adjust Horizontal position and Horizontal amplitude  2- Adjust EW Amplitude, EW Trapezium 

ALLGEMEINE INFORMATIONEN

FEHLERSUCH-METHODIK

1 - EINSCHALTEN DES GERÄTES:

- Beobachten Sie beim Einschalten des Gerätes die Standby-LED. Abweichungen vom "normalen" Einschaltverhalten des Gerätes können Hinweise auf eventuelle Fehler im Gerät und deren möglichen Ursachen geben.

2 - FEHLERSUCHE : VERHALTEN DER LED :

In bestimmten Fällen bedeutet ein Blinken der LED die Anzeige eines Fehlercodes:

- Zählen Sie die Anzahl des Aufblinkens mit. Der zweistellige Fehlercode wird in zwei Gruppen von Blinkimpulsen, getrennt von einer 0,7s Pause, dargestellt.
Die Anzeige des Fehlercodes wird mehrere Male wiederholt.

Siehe **TABELLE DER FEHLERCODES**.

3 - FEHLERSUCHE :

Das Chassis ICC20 besteht im Wesentlichen aus zwei Platinen. Zuerst sollte festgestellt werden, welche Platine defekt ist und ob eine der Schutzschaltungen abgesprochen hat.

ÜBERPRÜFEN SIE ZUERST DEN KORREKTEN SITZ DIE BEIDEN PLATINEN VERBINDENDEN FLACHBANDKABEL

a - Das Chassis arbeitet ganz oder teilweise :

- Beobachten Sie die LED benutzen Sie die die Fehlersuchmethoden 1 und 2.
- Schauen Sie auch bei "**Symptom**" nach ähnlichen Fehlererscheinungen nach.

b - Das Chassis geht ständig oder periodisch in Schutzzustand :

b.1- Beobachten Sie das Verhalten der LED (Blinken rot, ständig orange gefolgt von Blinken usw.)
- Wählen Sie die entsprechende Box: "**Fehlersuche über das Verhalten der LED**".

Siehe Tabelle der Fehlercodes.

Beispiel :

Das Gerät macht drei Startversuche ehe es in Standby geht :

- Fehlercode 25 : +5V nicht verfügbar
- Fehlercode 35 : +5V and +8V nicht verfügbar.
- Fehlercode 37 : Unerwarteter Zustand auf der NMI (POWER FAIL)-Leitung

Dieses deutet auf ein Fehler auf der "**NETZTEIL- UND ABLENKPLATINE**" hin.

Bitte beachten Sie :

Diese Informationen sind nur Hinweise ! Die Anzeige der Fehlercodes und die Reaktion des Gerätes ist stark davonabhängig, wie der Fehler beschaffen ist und dem Zeitpunkt, wann er festgestellt wird. (Betriebszustand des Gerätes).

Wird ein Fehler während der Warmstartroutine dreimal festgestellt, wird im EEPROM zusätzlich zum Code der Fehlerursache auch der Fehlercode 27 mit abgespeichert

b.2- Die LED bleibt aus:

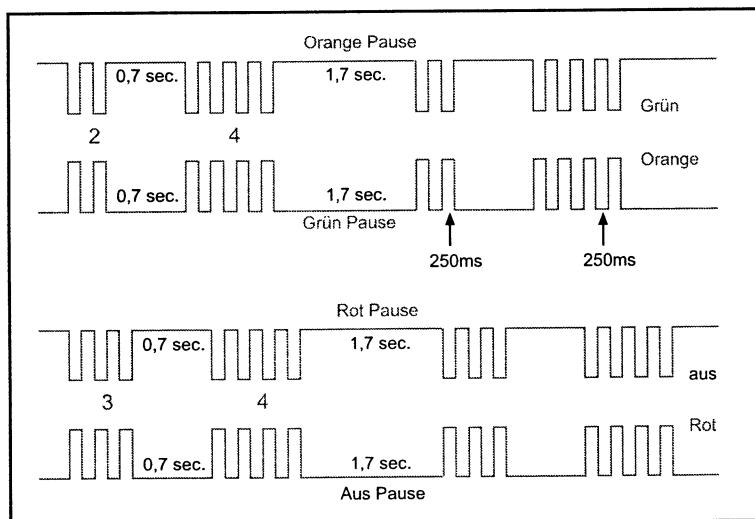
Überprüfen Sie zuerst die "**NETZTEIL- UND ABLENKPLATINE**".

ALLGEMEINE INFORMATIONEN - VERHALTEN DER LED

Blinken der LED

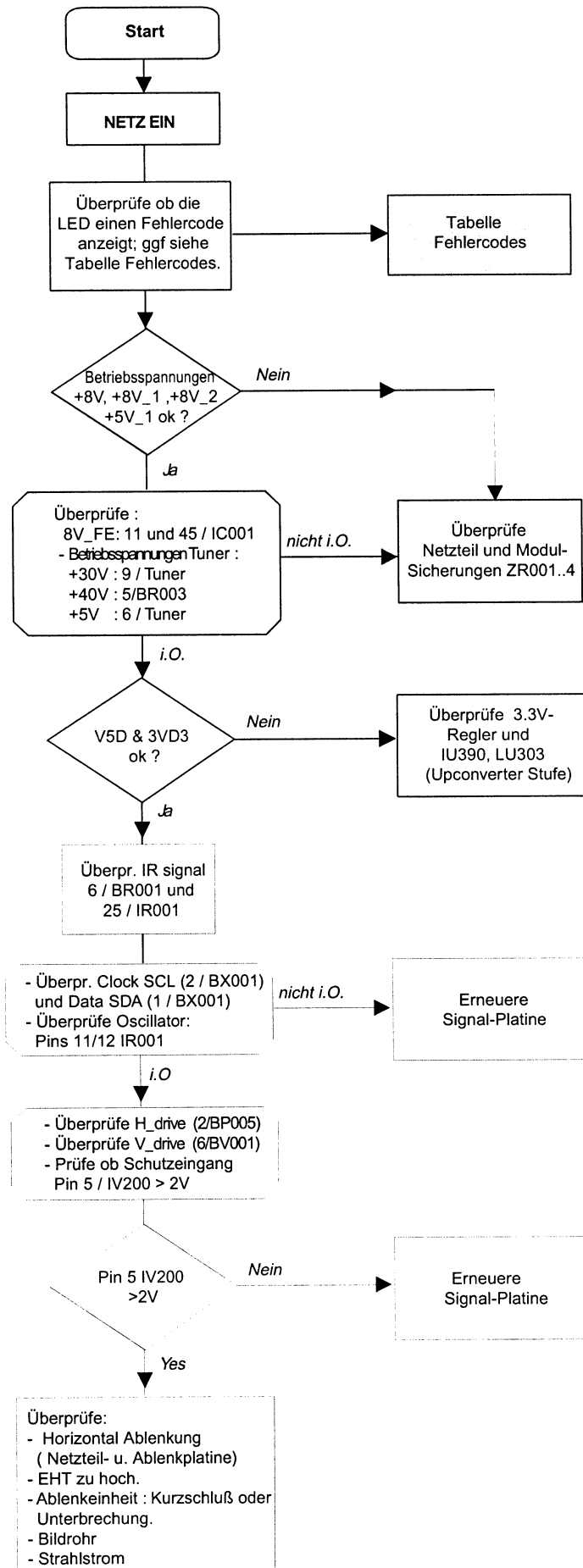
Anzeige eines Fehlercodes
Die Fehlercodes werden durch ein Blinken der roten

Zählen Sie die Anzahl der Blinkimpulse: der Fehlercode wird in zwei Gruppen, getrennt von einer 0,7s Pause übertragen.
Zwischen der Anzeige von zwei Fehlercodes ist eine Pause von 1.7 s.



CODES	FEHLER
10	Kindersicherung aktiv (Kein Fehlercode!)
11	Weckerfunktion aktiv (Kein Fehlercode !)
12	Erster Audio- MSP antwortet nicht
13	(Audio- DPL antwortet nicht)
14	TDA9330H antwortet nicht (oder +8V fehlen)
15	TDA9321 antwortet nicht (oder +8V fehlen)
16	DMU0 antwortet nicht
17	SAA4956 antwortet nicht
18	TDA9178 antwortet nicht
19	(Tuner antwortet nicht)
20	(I2C Bus ist blockiert)
21	I2C Bus Data ist immer L
23	I2C Bus Clock ist immer L
25	Geschaltete 5V nicht vorhanden
26	Bildrohr ist nicht rechtzeitig aufgeheizt
27	Schutzschaltung hat dreimal ausgelöst (wird nur im Service- Mode angezeigt)
28	Vertikal- Schutzschaltung ist aktiv
29	Horizontal- Schutzschaltung ist aktiv
31	Softwarefehler (nur für Produktionsstätten)
32	Softwarefehler (nur für Produktionsstätten)
34	NVM (EEPROM) antwortet nicht
35	5V und 8V nicht vorhanden (Netzspannung zu niedrig/ Power- Fail- Schaltung)
36	Softwarefehler (nur für Produktionsstätten)
37	Unerwarteter Zustand auf NMI- Leitung (z. B. durch Überschlag im Bildrohr)
38	Softwarefehler (nur für Produktionsstätten)
39	I2C Bus Data- Leitung nicht reaktivierbar
41	PDD Flag TDA9178 zu geringe Betriebsspannung
42	POR Flag TDA9321 zu geringe Betriebsspannung
43	POR Flag TDA9330H zu geringe Betriebsspannung
44	NRF Flag TDA9330H Referenz- PLL (Clock) nicht eingerastet
45	FLS Flag TDA9330H Pin 5 ('FLASH') > 2V, Ablenkschutzschaltung aktiv
46	NHF Flag TDA9330H Pin 13 H- Rückschlagimpuls fehlt
47	NDF Flag TDA9330H Pin 9 VERTICAL_ GUARD fehlt oder dauert zu lange
48	XPR Flag TDA9330H Pin 4 Überspannung (> 4V)
49	PSX Flag TDA9321H Quarz (Clock) nicht vorhanden

ÜBERPRÜFUNG SIGNAL-PLATINE



WARNING : *Before servicing this chassis read the safety recommendations.*
ATTENTION : *Avant toute intervention sur ce châssis, lire les recommandations de sécurité.*
ACHTUNG : *Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.*
ATTENZIONE : *Prima di intervenire sullo chassis, leggere le norme di sicurezza.*
IMPORTANTE : *Antes de cualquier intervención, leer las recomendaciones de seguridad.*

Do not disconnect modules when they are energized! Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch Mode) qu'au travers d'un transformateur d'isolement. Module nicht bei eingeschaltetem Gerät entfernen ! Servicearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare i moduli quando sono alimentati! Intraprendere riparazioni sulla sezione alimentatore solo con trasformatore isolante.

No desconectar los módulos cuando están activados. Las reparaciones en la sección de alimentación de energía deben ser ejecutadas solamente con un transformador de separación.

△ Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.

Le remplacement des éléments de sécurité (repérés avec le symbole △) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol △ gekennzeichnet) nicht durch Original - Ersatzteile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione degli elementi di sicurezza (marcati con il segno △) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio. In tal caso è "esclusa la responsabilità " del costruttore.

La sustitución de elementos de seguridad (marcados con el símbolo △) por componentes no homologados según la norma CEI 65, provoca la no conformidad del aparato. En ese caso, el fabricante cesa de ser responsable.

Note : During measurements in the power supply unit, use the primary power unit ground (Emit. TP060).

Attention : Mesures dans le bloc alimentation. Utiliser la masse du bloc alimentation (Emit. TP060).

Achtung : Bei Messungen im Primärnetzteil. Primärnetzteilmasse verwenden (Emit. TP060).

Attenzione : Misure nell'alimentatore primario. Usare massa alimentazione primario (Emit. TP060).

Cuidado : Medida en el bloque de alimentación. Utilizar la masa del bloque de alimentación (Emit. TP060).

MEASUREMENT CONDITIONS - CONDITIONS DE MESURES - MESSBEDINGUNGEN CONDIZIONI DI MISURA - CONDICIONES DE MEDIDAS

RECEIVER :

Bar test pattern : PAL, I standard, 100% white.

- On UHF, input level 1 mV
- Via the scart socket, input level 1 Vpp

Colour, contrast and brightness at mid-position, sound at minimum.

Programme selected : PR 01.

DC voltages measured between the point and earth using a digital voltmeter.

RECEPTEUR :

Mire de barres : SECAM, Norm L, Blanc 100%.

- En UHF, niveau d'entrée 1 mV
- Par la prise Péritélévision, niveau d'entrée 1Vcc.

Couleur, contraste, lumière à mi-course, son minimum.

Programme affecté PR 01.

Tensions continues relevées par rapport à la masse avec un voltmètre numérique.

EMPFÄNGER :

Farbbalken : PAL, Norm G, Weiss 100%

- Bei UHF Eingangspegel 1 mV.
- Über die Scartbuchse : Eingangspegel 1 Vss.

Farbe, Kontrast, Helligkeit in der Mitte des Bereichs, Ton auf Minimum.

Zugeordnetes Programm PR 01.

Gleichspannungen mit einem digitalen Voltmeter zur Masse gemessen.

RICEVITORE :

Monoscopio per barre : PAL, norma G. bianco 100%.

- In UHF, livello d'entrata 1 mV,
- Per la presa SCART, livello d'entrata 1 Vcc.

Colore, Contrasto, Luce a metà corsa, Suono minimo.

Programma designato PR 01.

Tensioni continue rilevate rispetto alla massa con un voltmetro numerico.

RECEPTOR :

Mira de barras : PAL, norma G, blanco 100%.

- En UHF, nivel de entrada 1 mV,
- Por la toma Peritelevision, nivel de entrada 1 Vpp.

Color, Contraste, luz a mitad de carrera, Sonido minimo.

Programa afectado PR 01.

Tensiones continuas marcadas en relacion a la masa con un voltmetro digital.



CLASS 1 LASER PRODUCT
APPAREIL A LASER DE CLASSE 1
LASER KLASSE 1
APARATO CON LASER DE CLASE 1
APPARECCHIO CON LASER DI CLASSE 1

DANGER :	Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
ATTENTION :	Le rayon laser est invisible. Eviter l'exposition directe lors de la maintenance.
VORSICHT BEI REPARATUREN :	Bei geöffneter Schublade und Defekt der Sicherheitsvorrichtungen besteht die Gefahr unsichtbaren Laserlichts. Niemals direkt in den Laserstrahl sehen.
ATTENZIONE :	Il raggio laser è invisibile. Evitare l'esposizione diretta durante la manutenzione.
IMPORTANTE :	El rayo laser es invisible. Evitar la exposición directa en el momento del mantenimiento.

PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE DEVICES (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity.

Such components commonly are called Electrostatically Sensitive Devices (ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
4. Use only an anti-static solder removal devices. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
6. Do not remove a replacement ESD device from its protective package until immediately before you are ready to install it. (Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).
7. Immediately before removing the protective materials from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety, these parts are marked by  symbol on the schematic circuit diagrams and replacement part list. It is essential that these safety critical components are replaced with the manufacturer's specified parts to prevent electric shock, fire, or other hazards. Do not attempt to modify the original design without permission of the manufacturer.

DVD PLAYER REMOVAL - DEPOSE DU LECTEUR DVD - AUSBAU DES DVD-SPIELERS RIMOZIONE DEL DVD - RETIRADA DEL REPRODUCTOR DVD

(GB)

- 1 - Carefully remove the connexion cable between the TV chassis and the DVD player
- 2 - Disengage the TV chassis.
- 3 - Remove the screws (1) and lift off the DVD player (2) (Fig.1).

(F)

- 1 - Déconnecter les cables de liaison entre le chassis TV et le lecteur de DVD player.
- 2 - Dégager le TV chassis.
- 3 - Retirer les trois vis de fixation (1) et déposer le lecteur de DVD (2) (Fig.1).

(D)

- 1 - Entfernen Sie vorsichtig das Verbindungskabel zwischen dem TV-Chassis und dem DVD-Player
- 2 - Nehmen Sie das TV-Chassis aus dem Gehäuse.
- 3 - Entfernen Sie die Schrauben (1) und heben Sie den DVD-Spieler heraus (2) (Fig.1).

(I)

- 1 - Rimuovere con cura il cavo di connessione tra il telaio e il DVD.
- 2 - Sfilare il telaio TV.
- 3 - Togliere le viti (1) e estrarre il DVD (Fig.1).

(E)

- 1 - Retirar con cuidado el cable de conexión entre el chasis TV y el reproductor DVD.
- 2 - Desenganchar el chasis TV.
- 3 - Retirar los tornillos (1) y levantar verticalmente el reproductor DVD (2) (Fig.1).

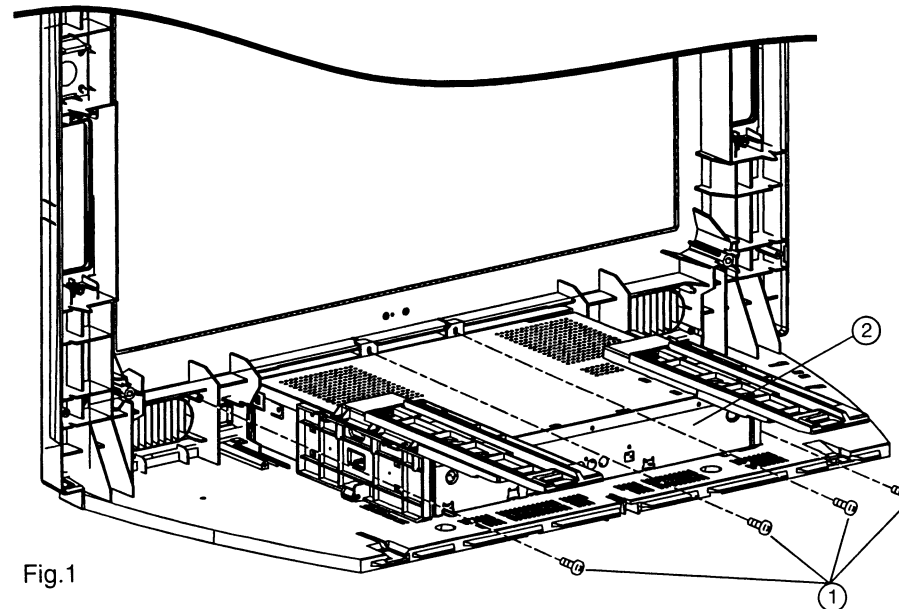


Fig.1

ADJUSTMENT PROCEDURES

Note: for the maintenance, it is possible to activate the DVD module as a standalone unit, see page 5.

1. Handling the optical pickup

The laser diode used in the optical pickup may break down due to potential differences caused by electricity produced by clothing or the human body, care should therefore be taken to prevent electrostatic discharge whilst repairing the optical pickup.

The following method is recommended.

- 1) Place a conductive sheet on the work bench (The black sheet used for wrapping repair parts.)
 - 2) Place the set on the conductive sheet so that the chassis is grounded to the sheet.
 - 3) Place your hands on the conductive sheet (doing this gives them the same ground as the sheet.
 - 4) Remove the optical pickup block
 - 5) Perform work on top of the conductive sheet. Be careful not to let your clothes or any other static sources to touch the unit.
- * Grounding the Human Body, use an antistatic wrist strap to discharge static electricity from your body.
- * Grounding the work place, use either an antistatic matt or a sheet of steel on the area where the optical pickup is to be placed and ground the matt/sheet.

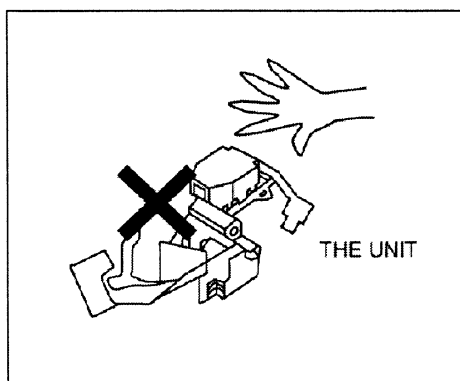


Fig. 1-1

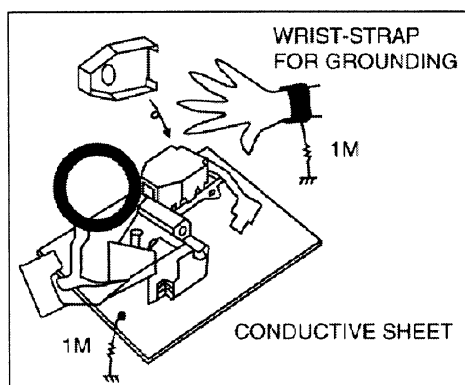


Fig. 1-2

- 6) Short the short terminal (A) on the PCB, which is inside the Pickup Assembly, before disconnecting the flexible cable (B) for replacing the Pickup. (The short terminal is shorted when the Pickup Assembly is being lifted or moved.)

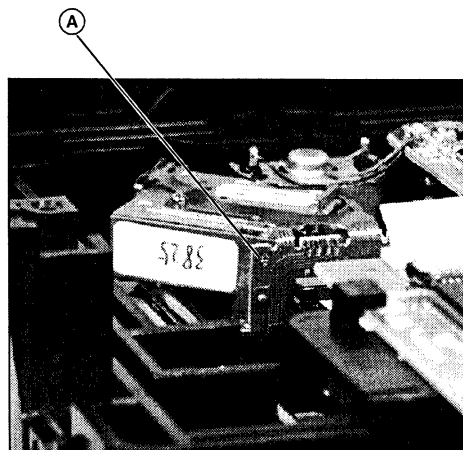


Fig. 1-3

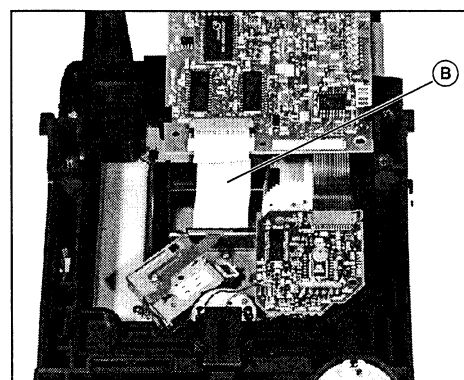


Fig. 1-4

- (7) After replacing the Pickup, open the short terminal on the PCB.

2. Disassembly and assembly

Note : Reassemble in reverse order.

2.1 Removing the top cabinet

- 1) Remove the 3 screws of the right bracket. Pull the clip (D) in the direction of arrow (C), then push the bracket in the direction of arrow (B).
- 2) Perform the same operation for the left bracket.
- 3) Remove the screw on the back of the top cabinet
- 4) Lift the top cabinet up.

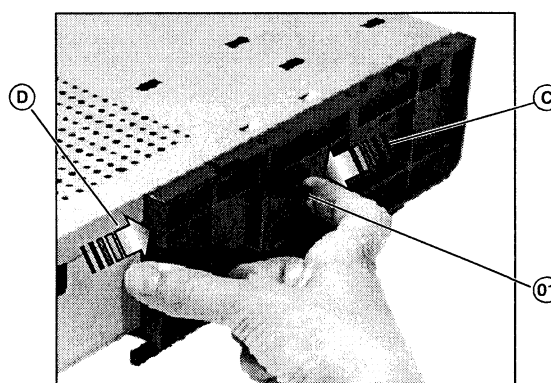


fig 2.1

2-2 Removing the door-tray

- 1) Switch the power on and open the tray.
- 2) Remove the door-tray.
- 3) Close tray and switch the power off.

Note : If the tray cannot be opened, insert a screw driver into the plastic slot accessible through emergency hole ② (as shown below) and push it in the direction of arrow ⑤ Open the tray manually.

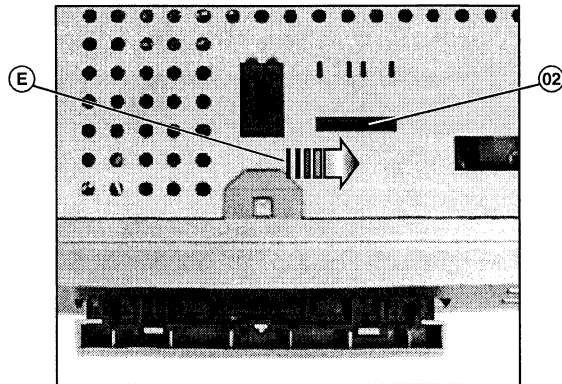


fig 2.2

2-3 Removing the front panel

- 1) Disengage the 3 clips located under the set and the 2 clips located on both sides of the front panel.
- 2) Remove connector BK225 between the main board and KDB1.
- 3) Dismount the Front panel.

2-4 Removing the tray

- 1) Remove two screws ③ .
- 2) Disengage 4 clips ④ .
- 3) Remove cover ⑤ .
- 4) Open and pull the tray.

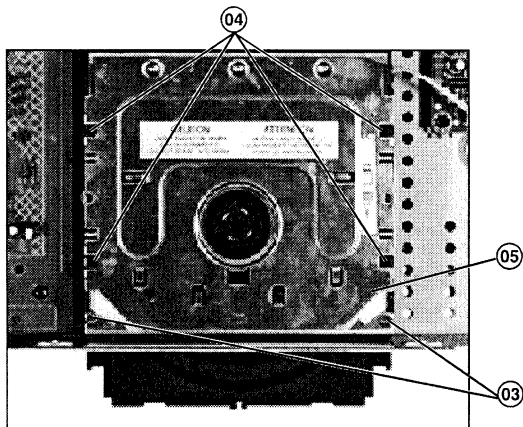


fig 2.4.1

2-5 Removing the mechanical assembly

- 1) Disconnect BU702 ⑥ and ground cable ⑦ .

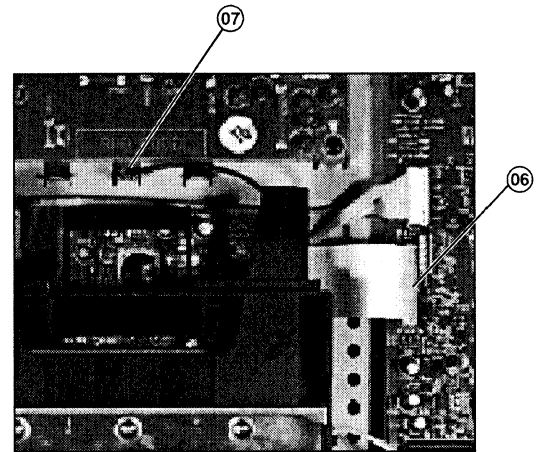


fig 2.5.1

- 2) Remove two screws ⑧ .
- 3) Disengage clip ⑨ .

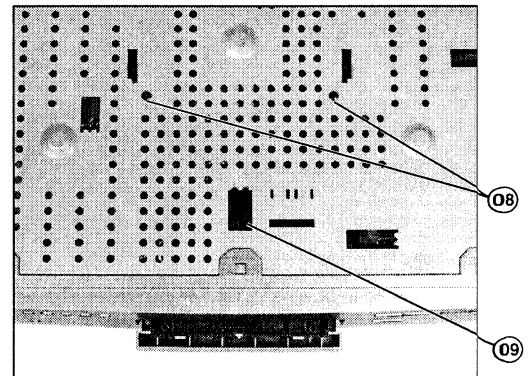


fig 2.5.2

- 4) Disengage 2 clips ⑩ .

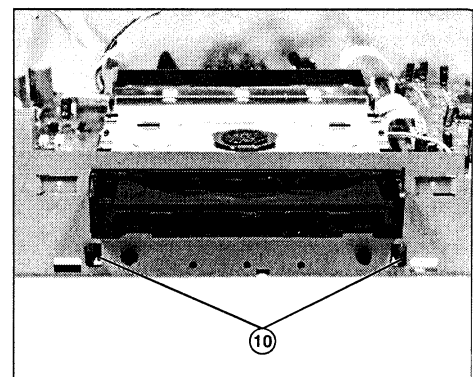
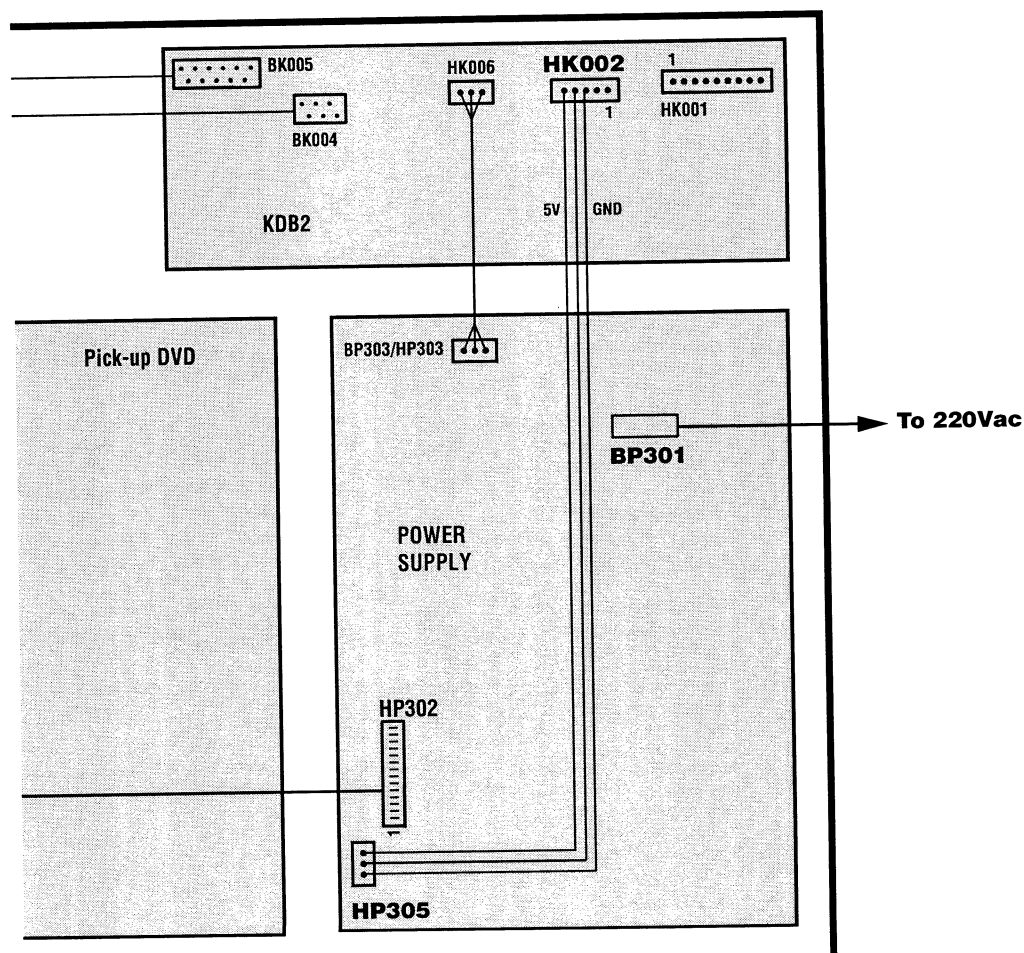


fig 2.5.3

- 5) Push the mechanical assembly backward and lift it up.

- 1) Connect BP301 to the mains (220Vac),
- 2) Connect HP305 (three wires cable with female connector from DVD power board) to HK002 (Three wires cable with male connector from KDB2 board) to supply 5V and GND to the KDB board (see diagram below),
- 3) To activate the DVD module as a standalone unit, press on the front keyboard, the three keys "MENU", "STOP" and "OK", simultaneously during at least 5 seconds. Then the DVD module can be controlled by the front keyboard or the RCU.

Note: the step 3 must be repeated each time the mains is switched off and switched on.



RUNNING POWER SUPPLY IN STAND ALONE CONDITION



All of the following tests must be carried out with the MAINS switched OFF.

Any operations carried out with the MAINS switched ON may lead to components being destroyed.

With the following configuration it is possible to start the power supply in stand alone function.

- Disconnect mains.
 - Remove connector BP005 and BL111.
 - Make a connection between pin 18 (PO) of BP005 to GND .
 - Connect pin 21 (CNT2_20V) of BP005 to cathode of DP120 (+20V).
 - Connect a resistor 12R0/5W between +5V and GND.
 - Connect a resistor 18R0/5W between +8V and GND.
 - Connect a resistor 4k0/10W between USYS and GND.
- ONLY NECESSARY IF NO CRT BOARD CONNECTED**

- Connect mains .
- Switch «ON».
- Remove connection between pin 18 (PO) of BP005 and GND.

- Measure the following voltages :

Voltage	Value
Usyst (C / DP110) (G/7)*	185V +/-10V
+20V (C / DP120) (G/5)*	25.5V +/- 1V
+10V (C / DP140) (G/6)*	11.5V +/-0.6V
+8V (C / DP194) (H/1)*	8.15V +/-0.25V
+6V (C / DP150) (F/5)*	6.1V +/-0.2V
+5V (A / DP152) (H/3)*	5.1V +/-0.15V
+UA (C / DP130) (F/9)*	22V +/-2V
-UA (A / DP135) (J/8)*	-20V +/-2V

(*) Components location reference

NOTE : Don't forget to remove all additionnal loads, the connection between pin 21 of BP005 and +20V and reconnect BP005, BL111 after stand alone function.

GENERAL INFORMATION

METHODOLOGY

1 - SWITCHING "ON" THE TV:

- Observe the behaviour of the two-coloured LED: note the various stages and compare them with the normal cycle of events.
By watching this, the point at which the problem arises and the part of the circuit which needs to be investigated can be identified.

2 - TROUBLESHOOTING PROCEDURE : LED BEHAVIOUR :

In certain cases a flashing LED signifies the transmission of an error code message:

LED flashes : Message transmission.

- Count the flashes : coded into bursts separated by a pause of 0.7s and repeated several times.
répétées plusieurs fois.

See the **ERROR CODE TABLE**.

3 - FAULT FINDING :

The ICC20 chassis being equipped with two main boards it is necessary to identify in a first time the defective board and what security is available.

After the check of the **GOOD CONNECTION BETWEEN THE TWO MAIN BOARDS**

- Operation stages 1 and 2:

a - The chassis set operates fully or partially:

- Use LED message observation fault finding methods 1 and 2.
see also the fault related to fault finding by "**Symptom**".

b - The chassis set goes into permanent or cyclical security mode :

b.1- **Observe LED behaviour** (flashing red, stable orange followed by flashing, etc...)
Select the relevant box in the column : "**LED behavior fault finding**".

See the Error Code Table information.

For example :

Three attempts to switch on the power supply before standby :

- Error code 25 : +5V not available
- Error Code 35 : +5V and +8V not available.
- error Code 37 : No correct level on the NMI (POWER FAIL) line

indicate a problem of "**POWER / SCAN BOARD**".

Please Note :

These information give only an indication because, they don't display all the cases : since various fault generates the same error code or signal a secondary effect relative to the "**SMALL SIGNAL BOARD**" for example.

In the service mode, it is possible to consult a record of the latest error codes which have occurred in the television set.

b.2- LED stays off :

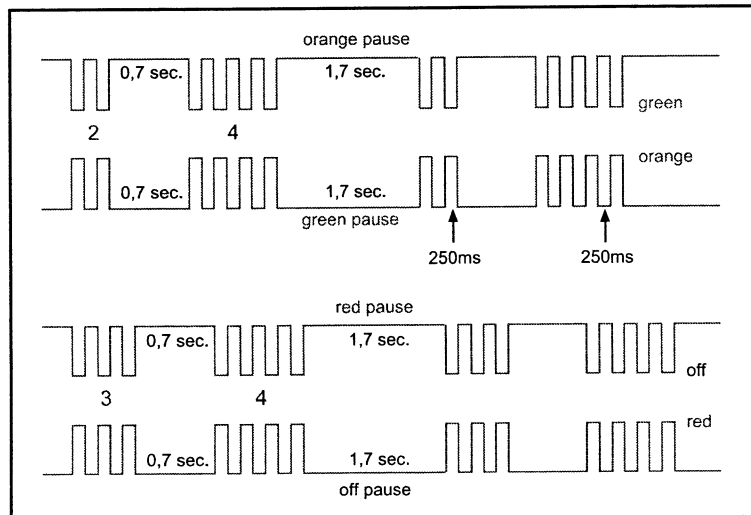
Make beforehand the diagnosis of the "**POWER / SCAN BOARD**".

GENERAL INFORMATION - LED BEHAVIOUR

LED FLASHES

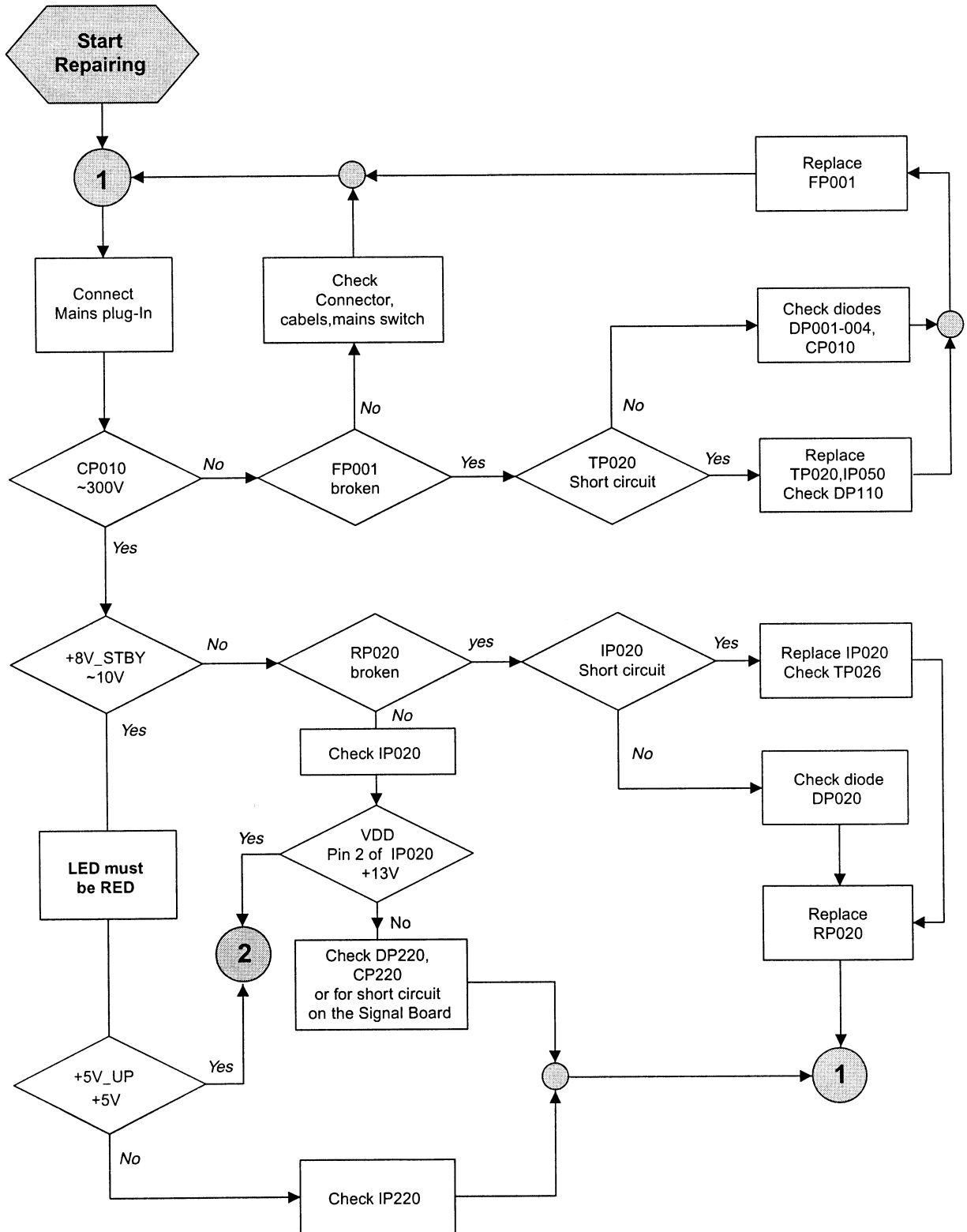
Message transmission.
The Error codes are signalled by the RED Standby LED.

Count number of flashes : error code is signalled in two burst separated by a 0.7 s pause and repeated several times.
There is 1.7 s between each code sequence .

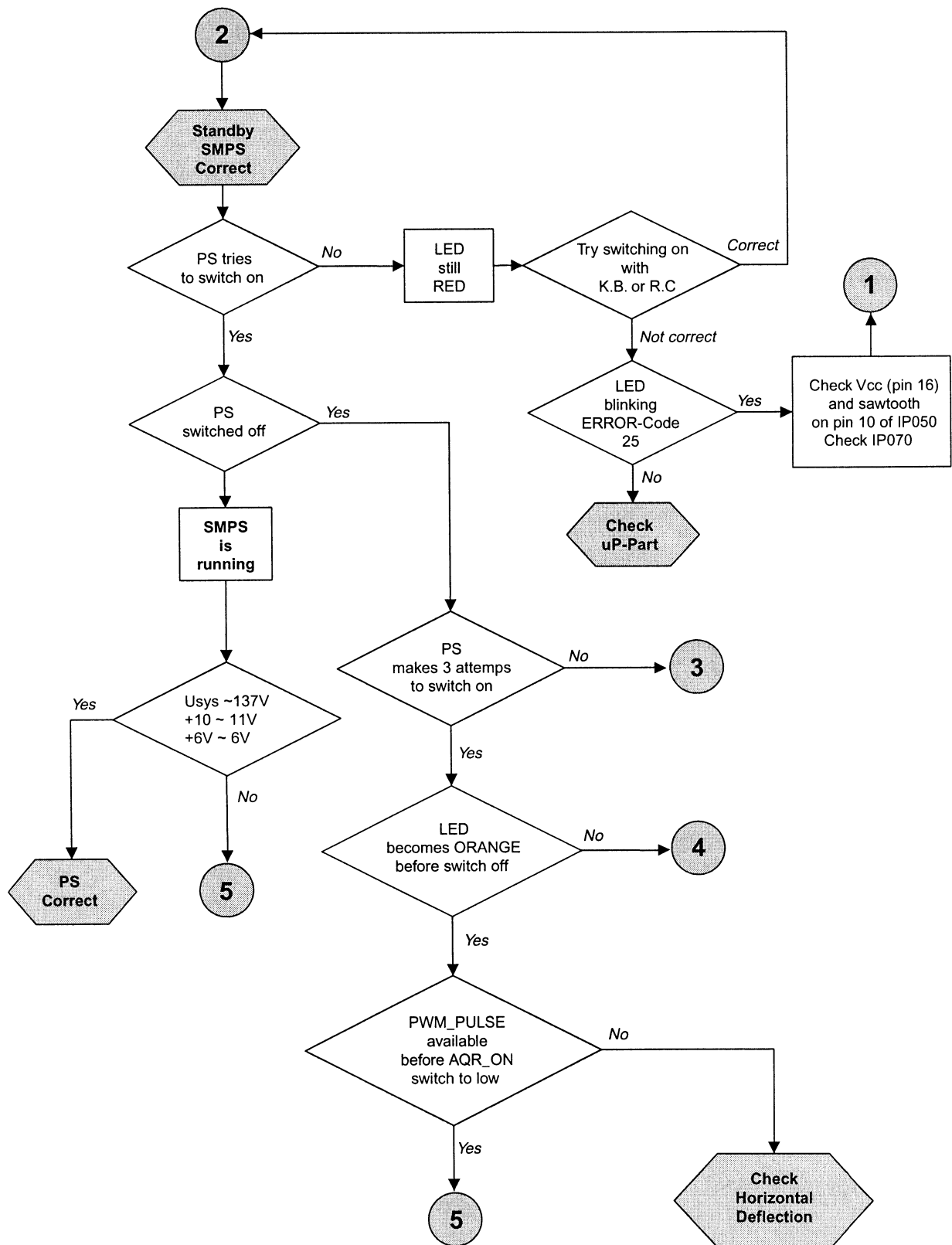


CODES	DEFAULT
10	Display effective child lock mode
11	Display timer mode
12	Audio-MSP doesn't answer anymore
13	Audio-Dpl doesn't answer anymore
14	TDA9330H doesn't answer anymore
15	TDA9321 doesn't answer anymore
16	DMU0 doesn't answer anymore
17	SAA4956 doesn't answer anymore
18	TDA9178 doesn't answer anymore
19	Tuner doesn't answer anymore
20	I2C Bus is locked
21	I2C Bus data line held low
23	I2C Bus clock line held low
25	Switched 5V not available
26	Tube gets not warm in time
27	Deflection detects >3 times prot
28	Vertical deflection safety is effective
29	Horizontal deflection safety is effective
31	Call with pointer that was not allocated
32	A software-timer has been requested but isn't available yet
34	The NVM chip doesn't answer anymore
35	5V and 8V not available
36	Wrong address passed to the bus-handler
37	Unexpected level on NMI line found
38	Heap full - There is no RAM available for the requested operation
39	I2C Bus data line not recoverable
41	Power down detection TDA9178 (PSI)
42	Power on reset error TDA9320 (HIP)
43	Power on reset error TDA9330 (HOP)
44	NRF bit problem (only factory information)
45	FLS bit problem (only factory information)
46	NHF bit problem (only factory information)
47	NDF bit problem (only factory information)
48	XPR bit problem (only factory information)
49	Problem with bits SXA...D (factory information)

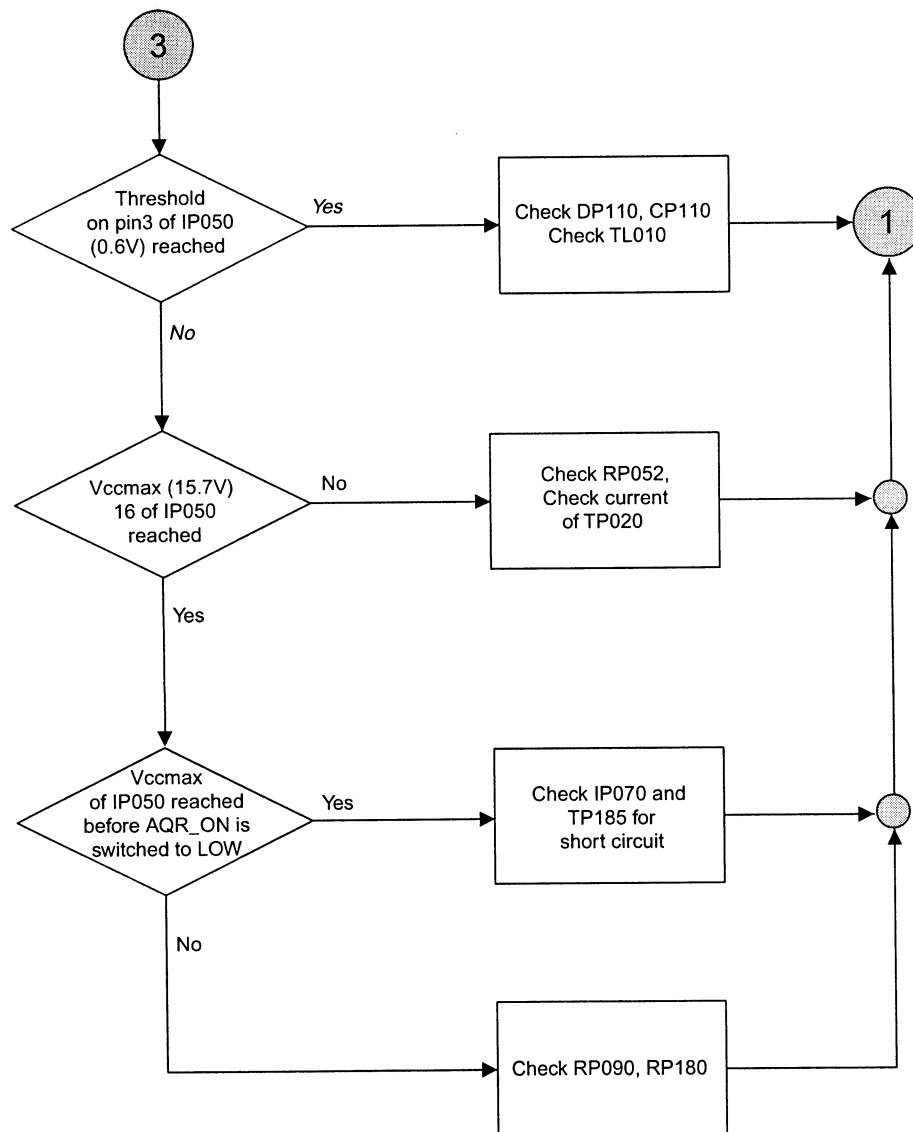
MAIN POWER SUPPLY CHECK



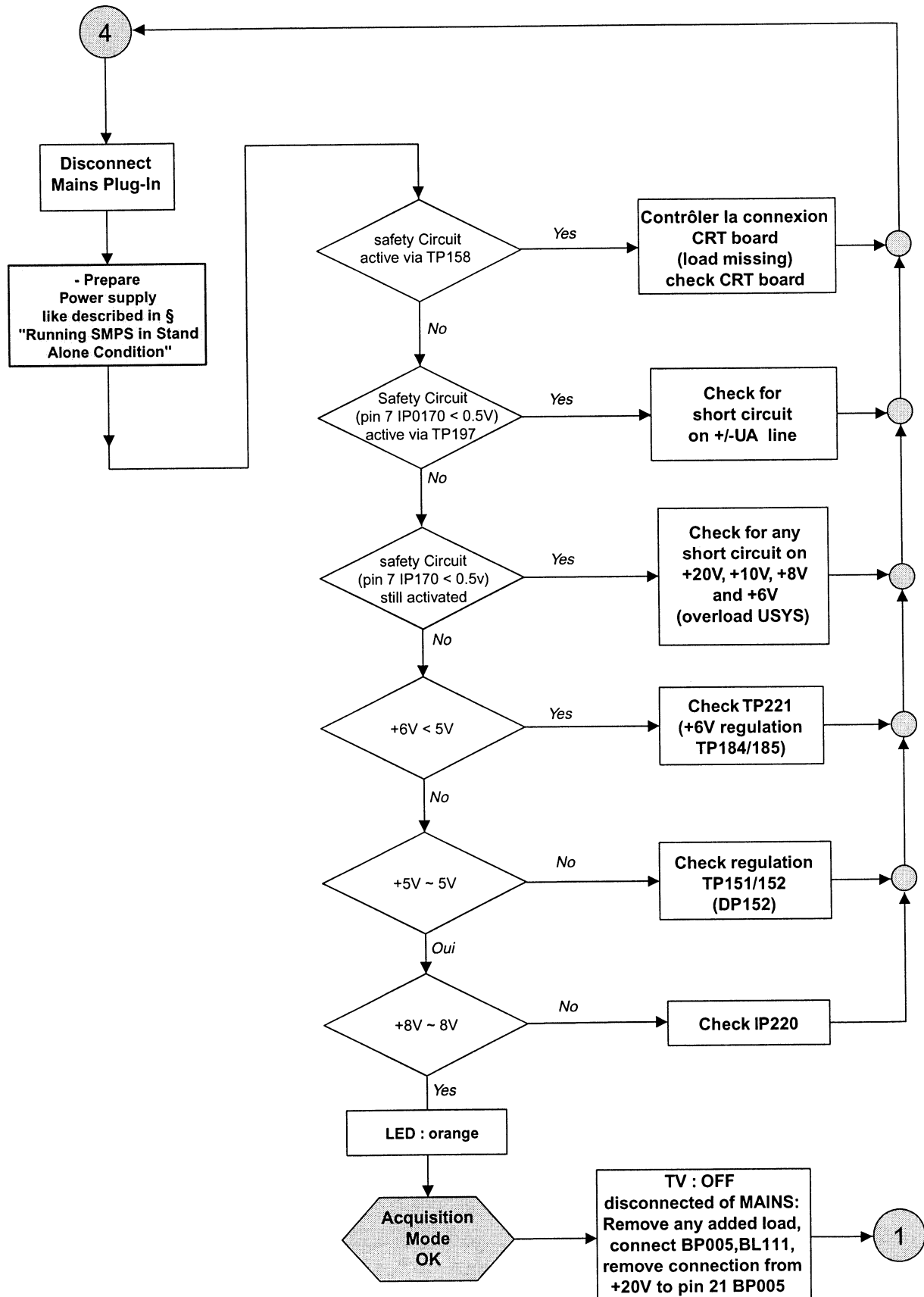
MAIN POWER SUPPLY CHECK



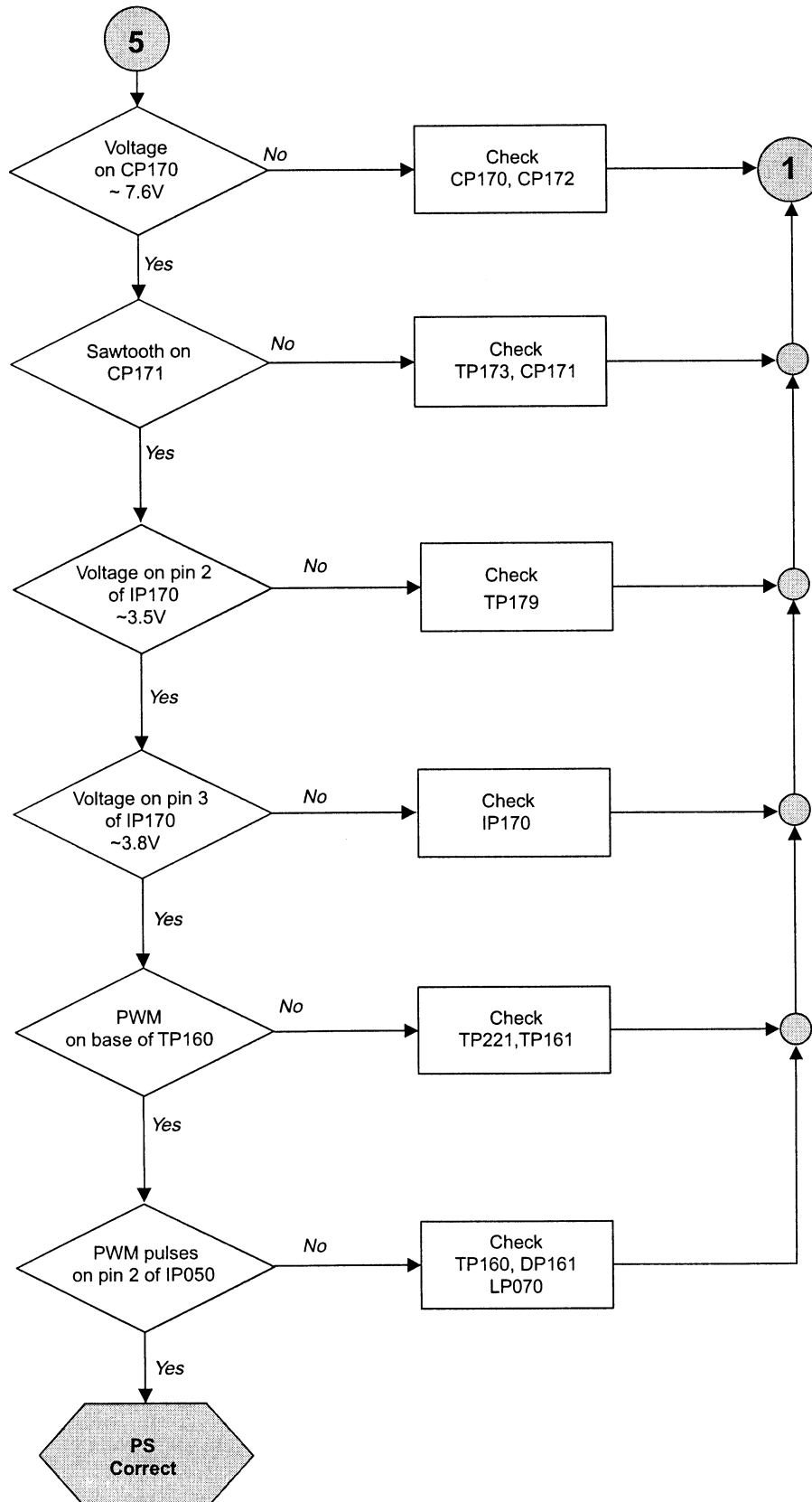
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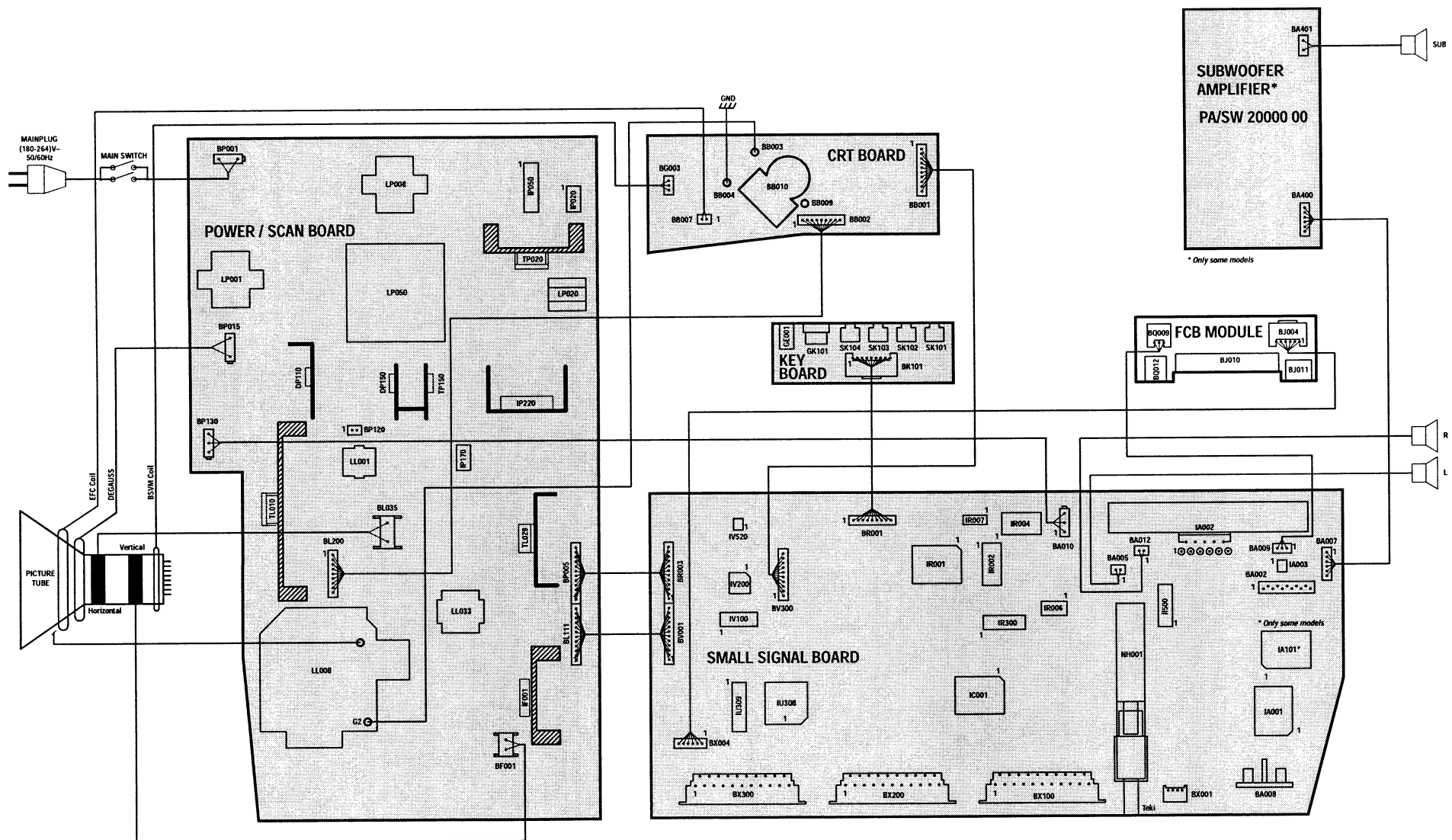
MAIN POWER SUPPLY CHECK



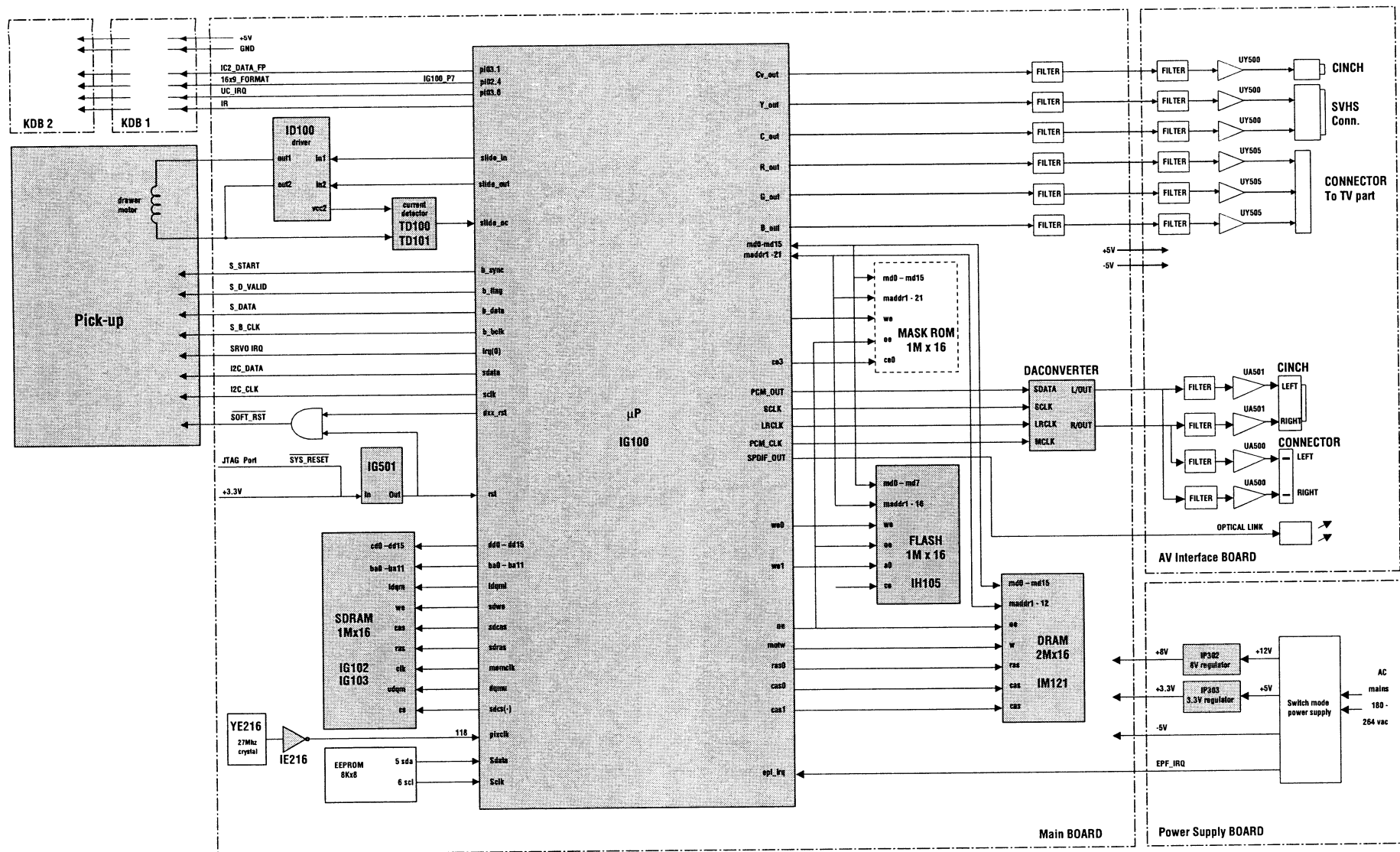
MAIN POWER SUPPLY CHECK



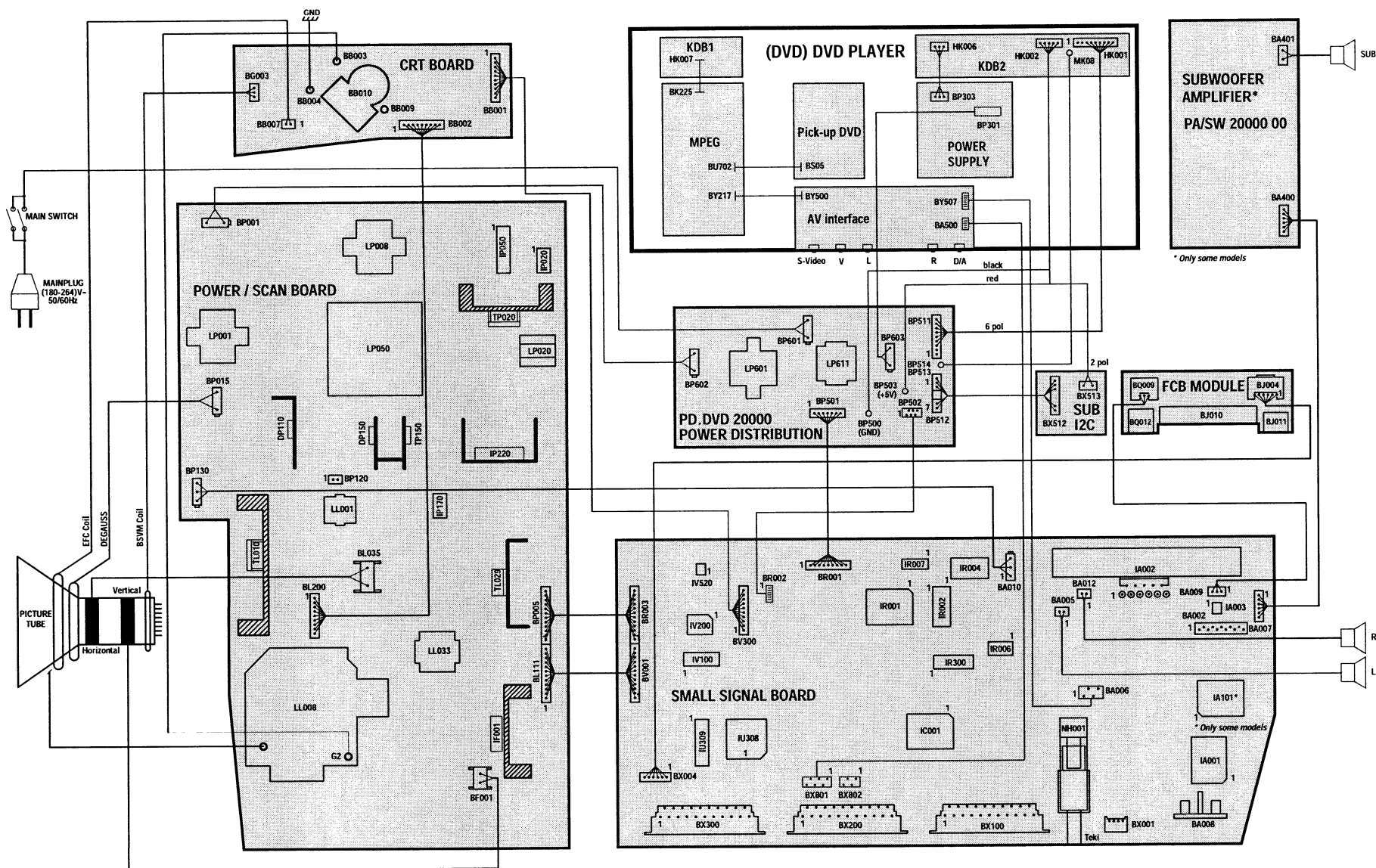
WIRING DIAGRAM - SCHEMA D'INTERCONNECTIONS - VERDRAHTUNGSPLAN - DIAGRAMMA DELLE INTERCONNESSIONI - ESQUEMA DE INTERCONEXIONES



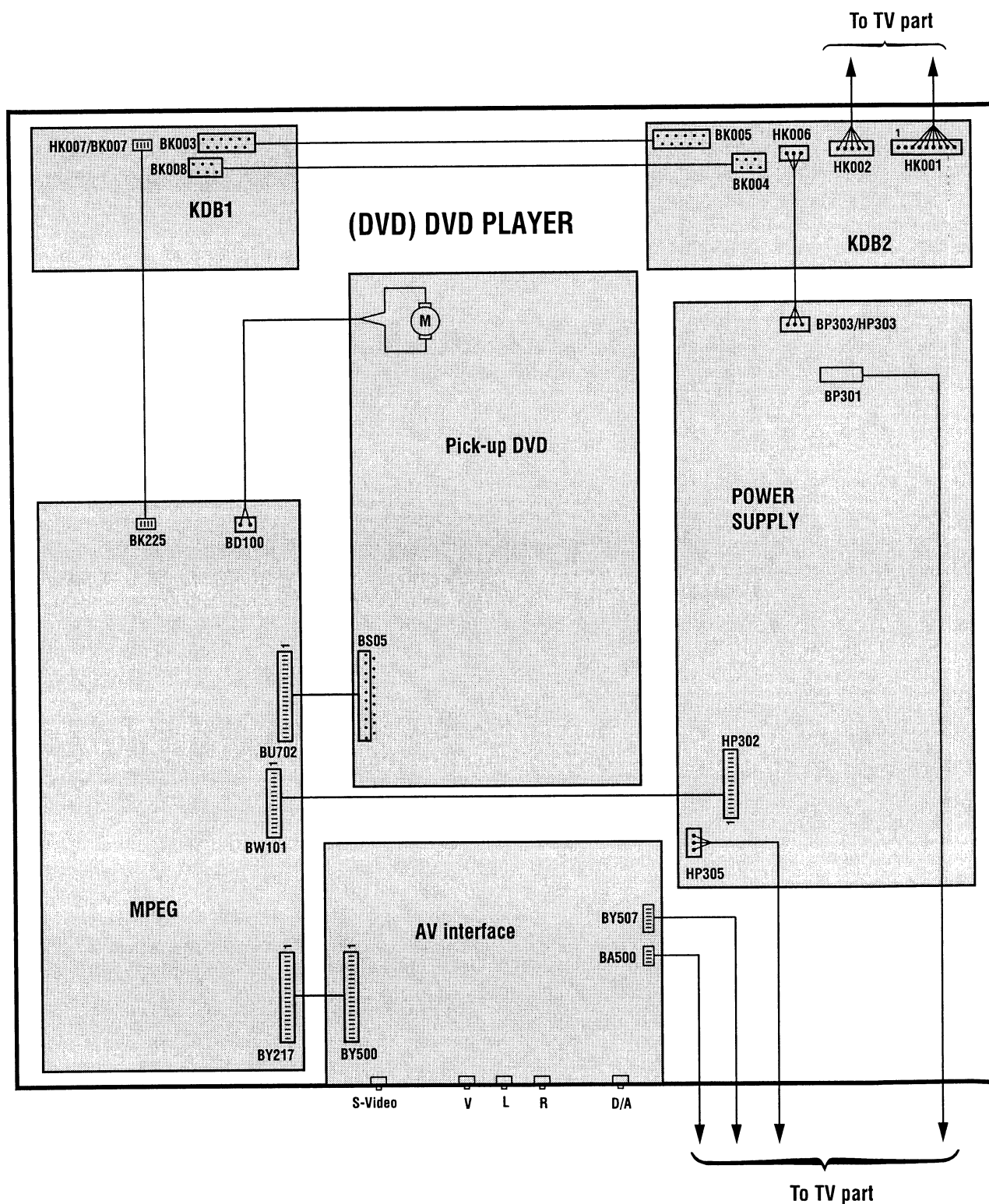
GENERAL BLOCK DIAGRAM -SYNOPTIQUE GÉNÉRAL -BLOCKSCHALTBIID ALLGEMEIN - SCHEMA A BLOCCHI GENERALE - ESQUEMA DE BLOQUES GENERAL



WIRING DIAGRAM - SCHEMA D'INTERCONNECTIONS - VERDRÄHTUNGSPLAN - DIAGRAMMA DELLE INTERCONNESSIONI - ESQUEMA DE INTERCONEXIONES



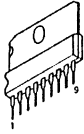
WIRING DIAGRAM - SCHÉMA D'INTERCONNEXIONS - VERDRAHTUNGSPLAN -
 DIAGRAMMA DELLE INTERCONNESSIONI - ESQUEMA DE INTERCONEXIONES



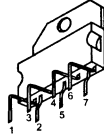
LIST OF ABBREVIATIONS - LISTE DES ABBREVIATIONS - ABKÜRZUNGEN LISTA DELLE ABBREVIAZIONI - LISTA DE ABREVIACIONES

● ABL	AVERAGE BEAM CURRENT LIMITING	● IIC-CL-1	I2C CLOCK BUS 1
● AQR_ON	DISABLE AQUISITION MODE REGUL. ENABLE PWM PULSE	● IIC-CL-2	I2C CLOCK BUS 2
● AV1_8	PIN_8 DETECTOR	● INF_POW_FAIL	POWER FAIL INFORMATION
● AV_LINK	AV_LINK DATAS VCR/TV	● IR	INFRARED RECEIVER
● AV_R_OUT	AUDIO RIGHT-OUT	● LDR	LED DISPLAY
● AV_L_OUT	AUDIO LEFT-OUT	● MUTE	MUTES AUDIO AMPLIFIERS
● AV_R_IN	AUDIO RIGHT-IN	● NMI	NON MASKABLE INTERRUPT
● AV_L_IN	AUDIO LEFT-IN	● PAN_SWITCH	SIGNAL FOR PANORAMA CIRCUIT
● AV_B	BLUE SIGNAL FROM AV	● PHI2_REF	PHI2 REFERENCE SIGNAL
● AV_G	GREEN SIGNAL FROM AV	● PIF	PICTURE IF SIGNAL
● AV_R	RED SIGNAL FROM AV	● PKS	PEAK SENSING
● AV_C_IN	CHROMA-IN	● PO	POWER ON
● AV_FB	FAST BLANK SIGNAL FROM AV SCART	● PWM	PULSE WIDTH MODULATION
● AV_Y_IN	VIDEO-IN	● RES_MSP	MSP RESET
● BEAM_INFO	BEAM CURRENT INFORMATION	● RESET	RESET TO MICROPROCESSOR
● BLKCURR	CUT OFF CURRENT	● ROTATION	OUTPUT OF EARTH FIELD CORRECTION STAGE
● B_TXT	BLUE SIGNAL OUTPUT (TEXT)	● R_OUT	RED SIGNAL TO VIDEO AMPLIFIER
● B_OUT	BLUE SIGNAL TO VIDEO AMPLIFIER	● R_TXT	RED SIGNAL OUTPUT (TEXT)
● BREATHING	COMPENSATE BREATHING PICTURE SIGNAL	● PIF	PICTURE IF SIGNAL
● BSVM	BEAM SCAN VELOCITY MODULATION	● SIF	SOUND IF SIGNAL
● CNT1_20V	SAFETY SIGNAL TO INSURE A GOOD CONNECTION BETWEEN SIGNAL BOARD AND POWER BOARD (BV001- BL111)	● SSC	SUPER SAND CASTLE
● CNT2_20V	SAFETY SIGNAL TO INSURE A GOOD CONNECTION BETWEEN SIGNAL BOARD AND POWER BOARD (BR003- BP005)	● SSC_V_GUARD	SAFETY DATA GENERATED BY THE VERTICAL AMPLIFIER TDA8177F
● CRT	CATHODE RAY TUBE	● TRAP_INFO	BG/L,L',D/K K' I SWITCH
● CVBS	VIDEO	● +USYS	SYSTEM VOLTAGE
● CVBS_LB_DET	LETTERBOX VIDEO DETECTION	● +/- UA	SOUND VOLTAGE
● DEFL_SAFETY	SAFETY INFORMATION FROM DEFLECTION	● +UVERT	POSITIVE SUPPLY VERTICAL VOLTAGE
● DEGAUSS	DEGAUSS SIGNAL	● -UVERT	NEGATIVE SUPPLY VERTICAL VOLTAGE
● DPC	DYNAMIC PHASE COMPENSATION SIGNAL	● +UVFB	POSITIVE SUPPLY VOLTAGE FOR VERTICAL POWER STAGE
● EFC	EARTH FIELD CORRECTION	● +UVIDEO	VIDEO VOLTAGE FOR THE CRT BOARD
● EHT	EXTREMELY HIGH TENSION	● U_IN	U FROM CHROMA DECODER
● E.W_DRIVE	EAST - WEST DRIVE SIGNAL	● V_IN	V FROM CHROMA DECODER
● EW_PROT	SAFETY SIGNAL FROM DIODE MODULATOR	● V_DRIVE	VERTICAL DEFLECTION DRIVE SIGNAL
● FB DETEC	FAST BLANKING DETECT	● Y_IN	Y FROM CHROMA DECODER
● FB_TXT	FAST BLANKING (TEXT)	● 5 V	5V POWER SUPPLY SIGNAL BOARD
● FW ADJ.	FULL WHITE ADJUSTMENT	● 6 V	6V POWER SUPPLY
● G_OUT	GREEN SIGNAL TO VIDEO AMPLIFIER	● 5V_UP	MICROPROCESSOR SUPPLY VOLTAGE
● G_TXT	GREEN SIGNAL OUTPUT (TEXT)	● 10 V	10V POWER SUPPLY
● H_DRIVE	DRIVE SIGNAL FOR HORIZONTAL DEFLECTION	● 8 V	8V SUPPLY SIGNAL BOARD
● HEATER	HEATER OUTPUT FROM THE DST TO CRT	● 8V_STBY	8V STANDBY
● H DEFL. PROT.	HORIZONTAL DEFLECTION PROTECTION	● 40V	SUPPLY VOLTAGE TUNER
		● 20V	SUPPLY VOLTAGE HORIZONTAL DRIVER AND BSVM CRT

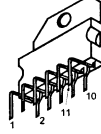
INTEGRATED CIRCUITS AND TRANSISTORS OUTLINE - CIRCUITS INTEGRES ET TRANSISTORS INTEGRIERTE SCHALTUNGEN UND TRANSISTOREN - CIRCUITI INTEGRATI TRANSISTOR CIRCUITOS INTEGRADOS Y TRANSISTORES



TDA 8139
TDA6111Q
TEA5101B



TDA 8177



TDA7269



4N25TV



K324PG
M24C32BNI
MC7805CT
MC7812CT
MC33076/P1
ST24C04-B1
TDA4605
X24164



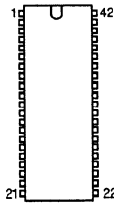
TL084C



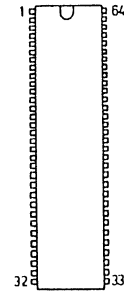
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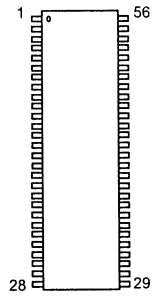
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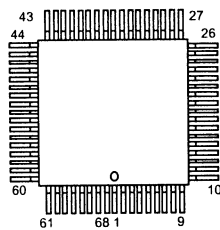
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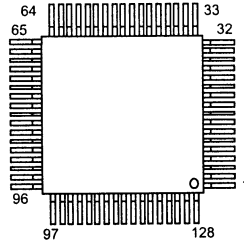
MPS3400
MPS3410



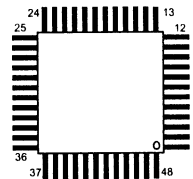
STV2040
STV2162



MS3400C-PS
MSP3410D-PS
ST90R92



IC-QP128



MC141627



BCR141- BC846B
BC 847B-BC856B
BC857B-BF 799
BC 848 A/B/C



BC368
BC639
BF421
BF 422
BF423



BC327
BC 337
BC547B
BC557B
BC 548B
BC 558B



2SA1837
2SC4793
2SC3675
BD 241
TIP122



BUL810TH
BUV48CFITH16
BW93CFI
BW94CFI
ON4977



7805
7812
L7912CV



BT806 -600C



STP6 NA60F1
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2SK1460

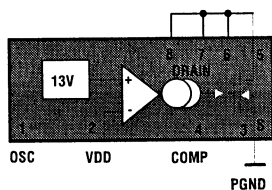


TR03-400T

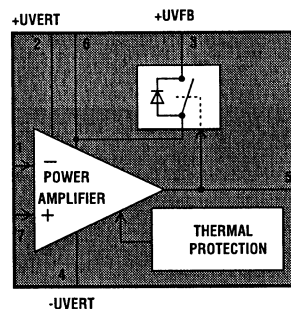
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 INTEGRIERTE SCHALTUNGEN BLOCKSCHALTBILDER
 SCHEMA A BLOCCHI DEL CIRCUITI INTEGRATI - VISTA INTERNA DE LOS CIRCUITOS INTEGRADOS

POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE -NETZTEIL- UND ABLENKPLATINE -
 PIASTRA DEFLESSIONE / ALIMENTAZIONE - PLACA ALIMENTACIÓN / BARRIDOS

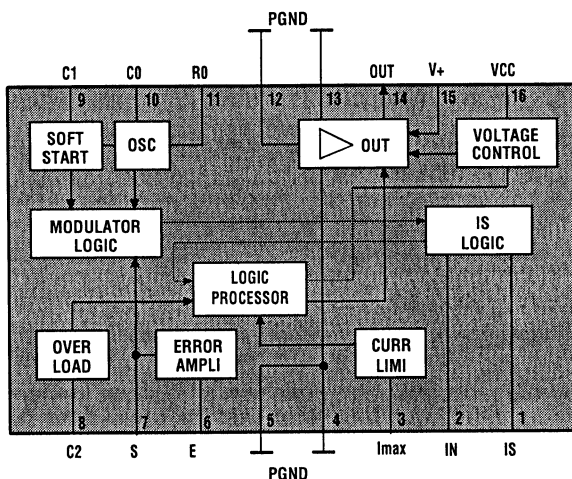
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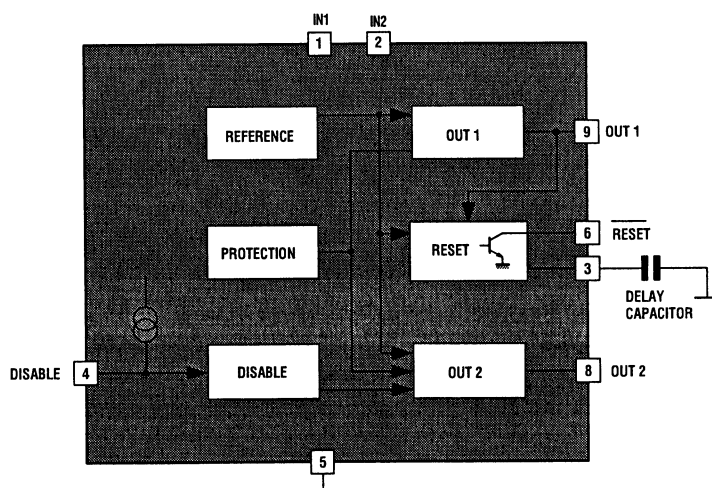
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IP050 - TEA2262



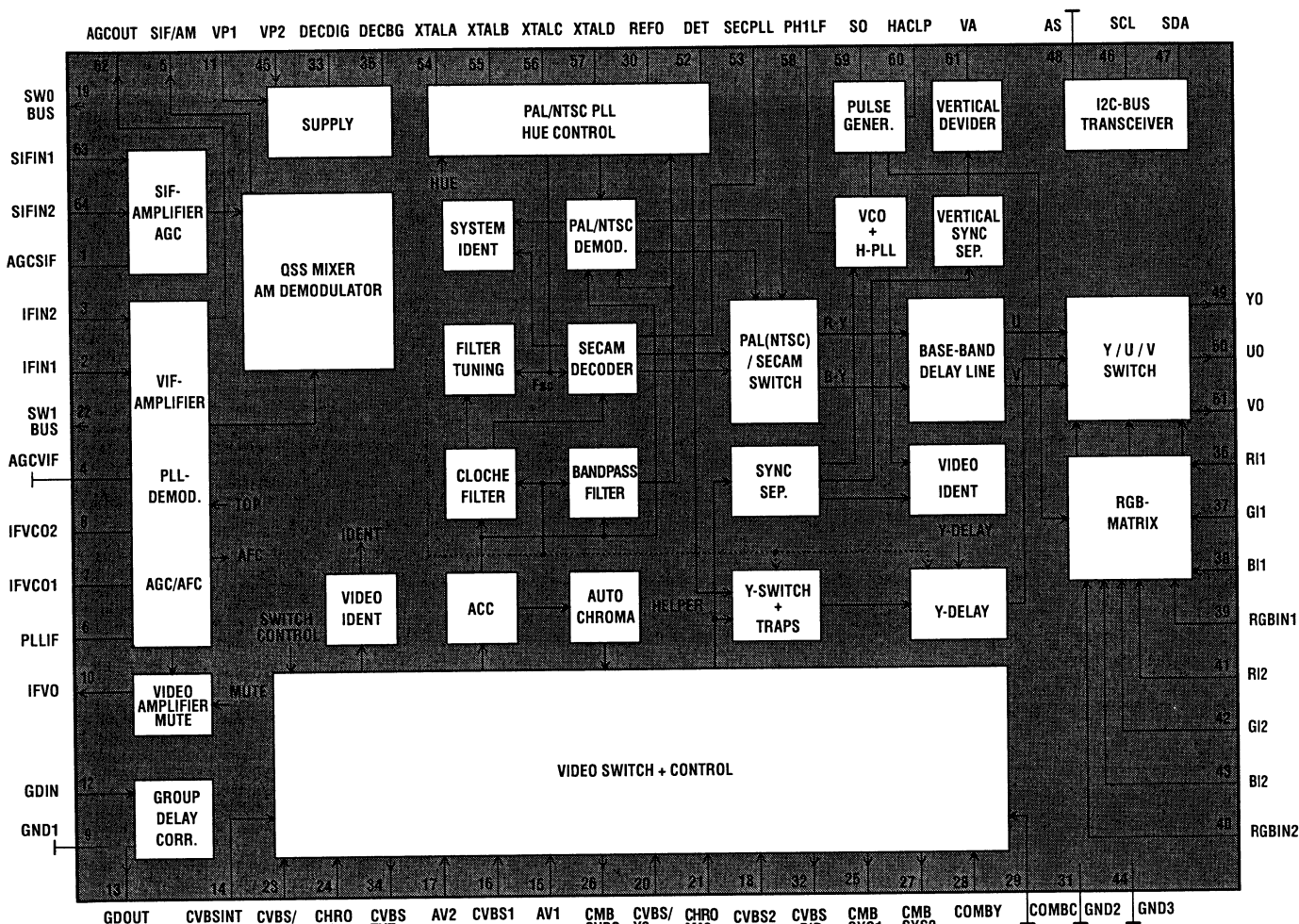
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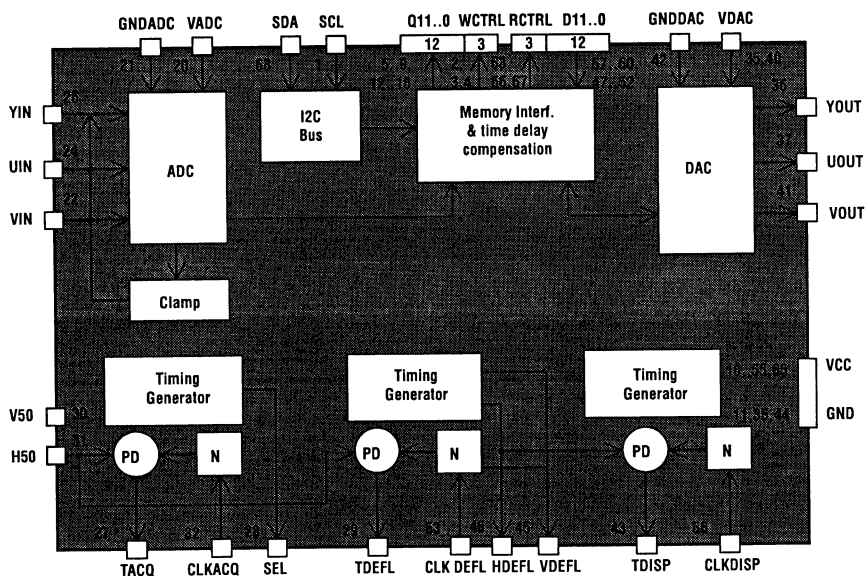
INTEGRATED CIRCUITS BLOCK DIAGRAMS - SYNOPTIQUES INTERNES DES CIRCUITS INTEGRES - INTEGRIERTE SCHALTUNGEN BLOCKSCHALTBILDER SCHEMA A BLOCCHI DEL CIRCUITI INTEGRATI - VISTA INTERNA DE LOS CIRCUITOS INTEGRADOS

SMALL SIGNAL BOARD - PLATINE PETITS SIGNAUX - SIGNAL-PLATINE -
 PIASTRA PICCOLI SEGNALI - PLACA PEQUEÑA SEÑAL

IC001 - TDA9321H



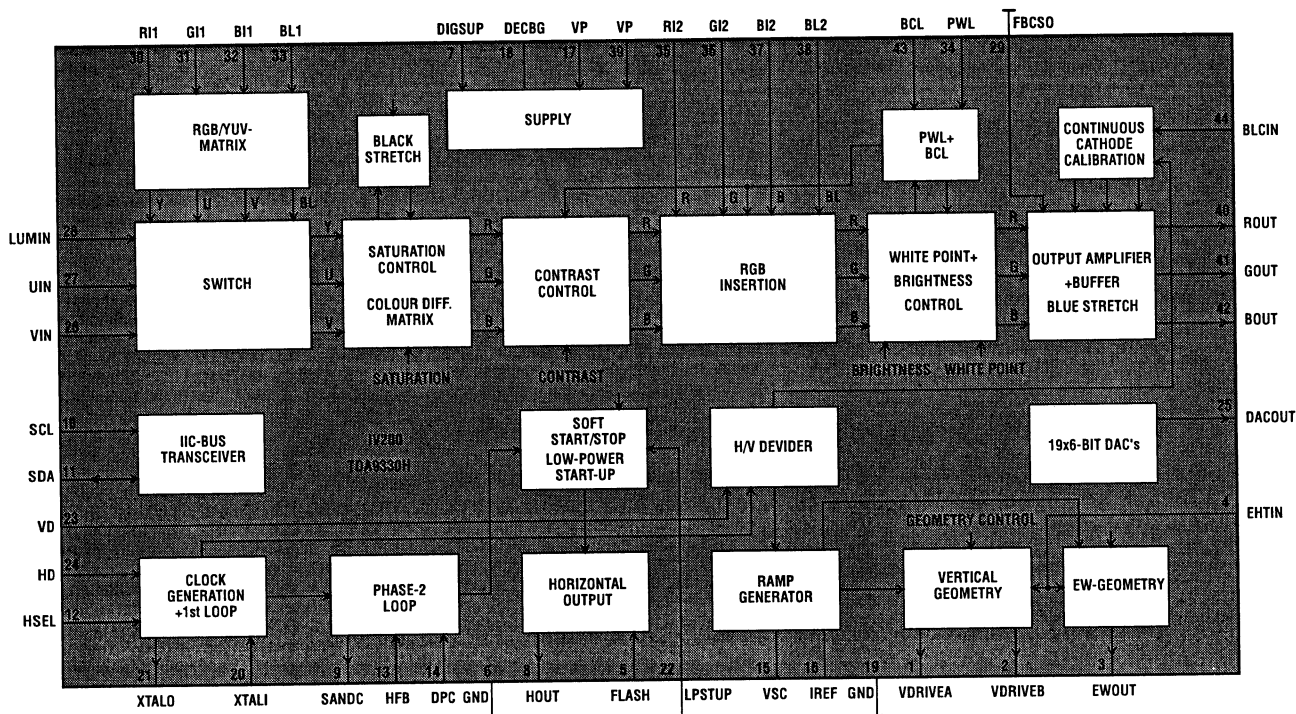
IU308 - DMU0



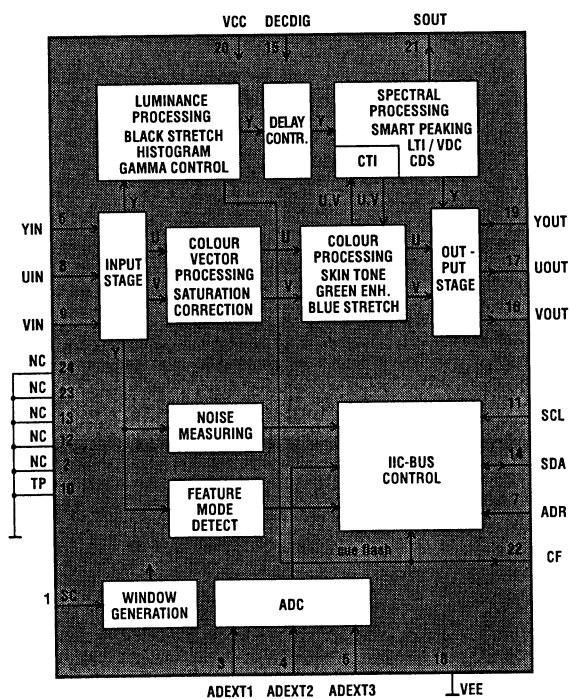
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SMALL SIGNAL BOARD - PLATINE PETITS SIGNAUX - SIGNAL-PLATINE -
 PIASTRA PICCOLI SEGNALI - PLACA PEQUEÑA SEÑAL

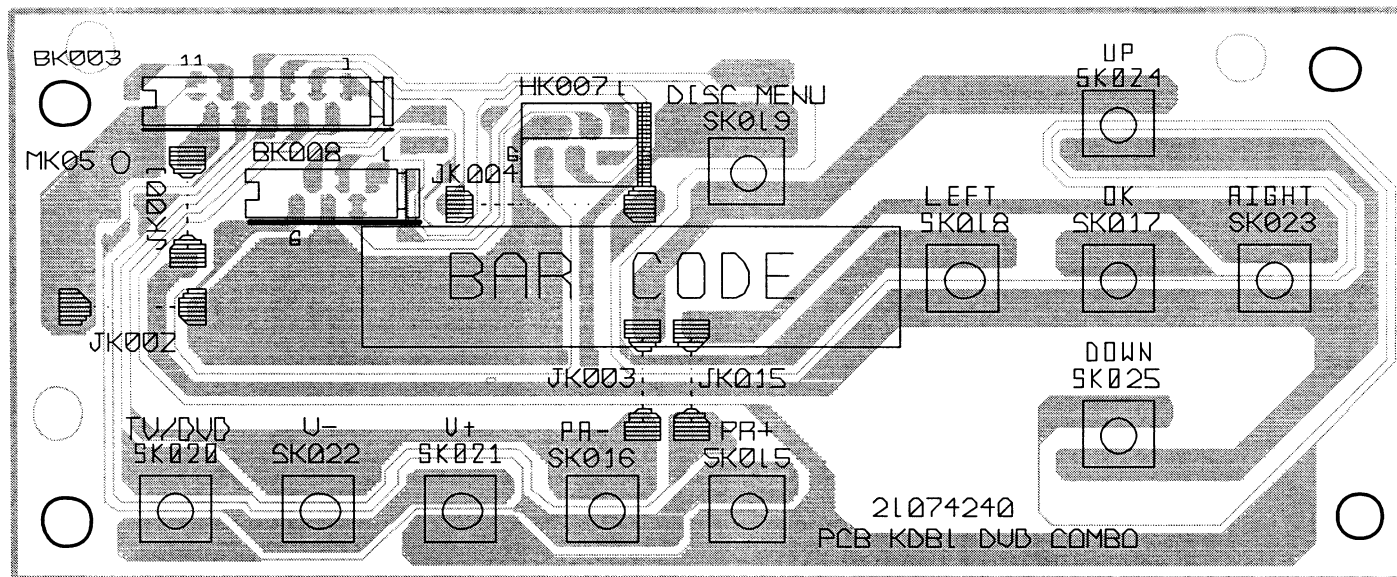
IV200 - TDA9330H



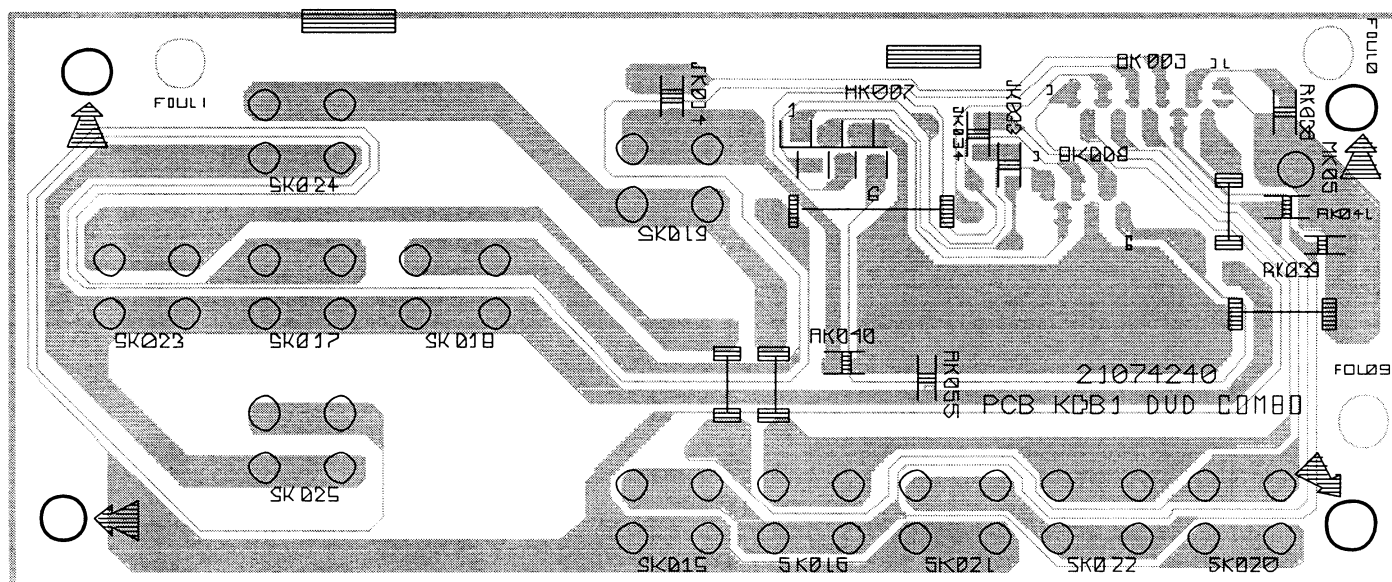
IV100 - TDA9178



KEYBOARD CIRCUIT BOARDS - CIRCUITS IMPRIMES PLATINES COMMANDES - LEITERPLATTE BEDIENTEIL - PIASTRE TASTIERA - PLATINAS MANDOS
COMPONENT SIDE - COTÉ COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

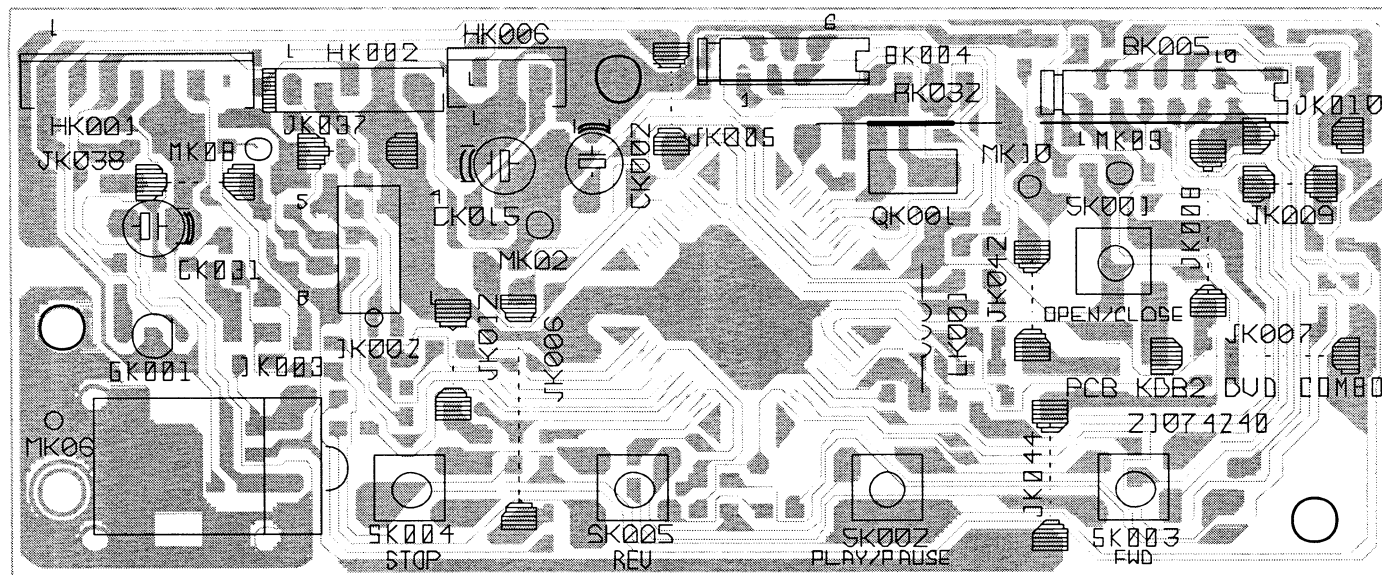


SOLDER SIDE - COTÉ CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE

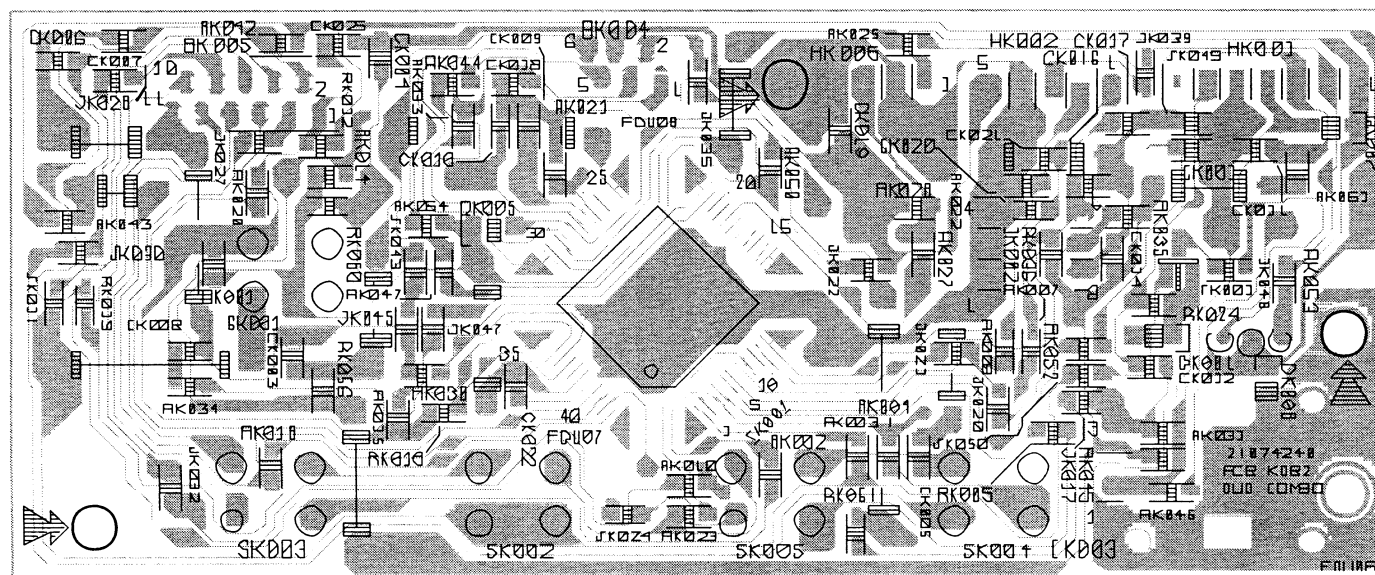


KEYBOARD CIRCUIT BOARDS - CIRCUITS IMPRIMES PLATINES COMMANDES - LEITERPLATTE BEDIENTEIL - PIASTRE TASTIERA - PLATINAS MANDOS

COMPONENT SIDE - COTÉ COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

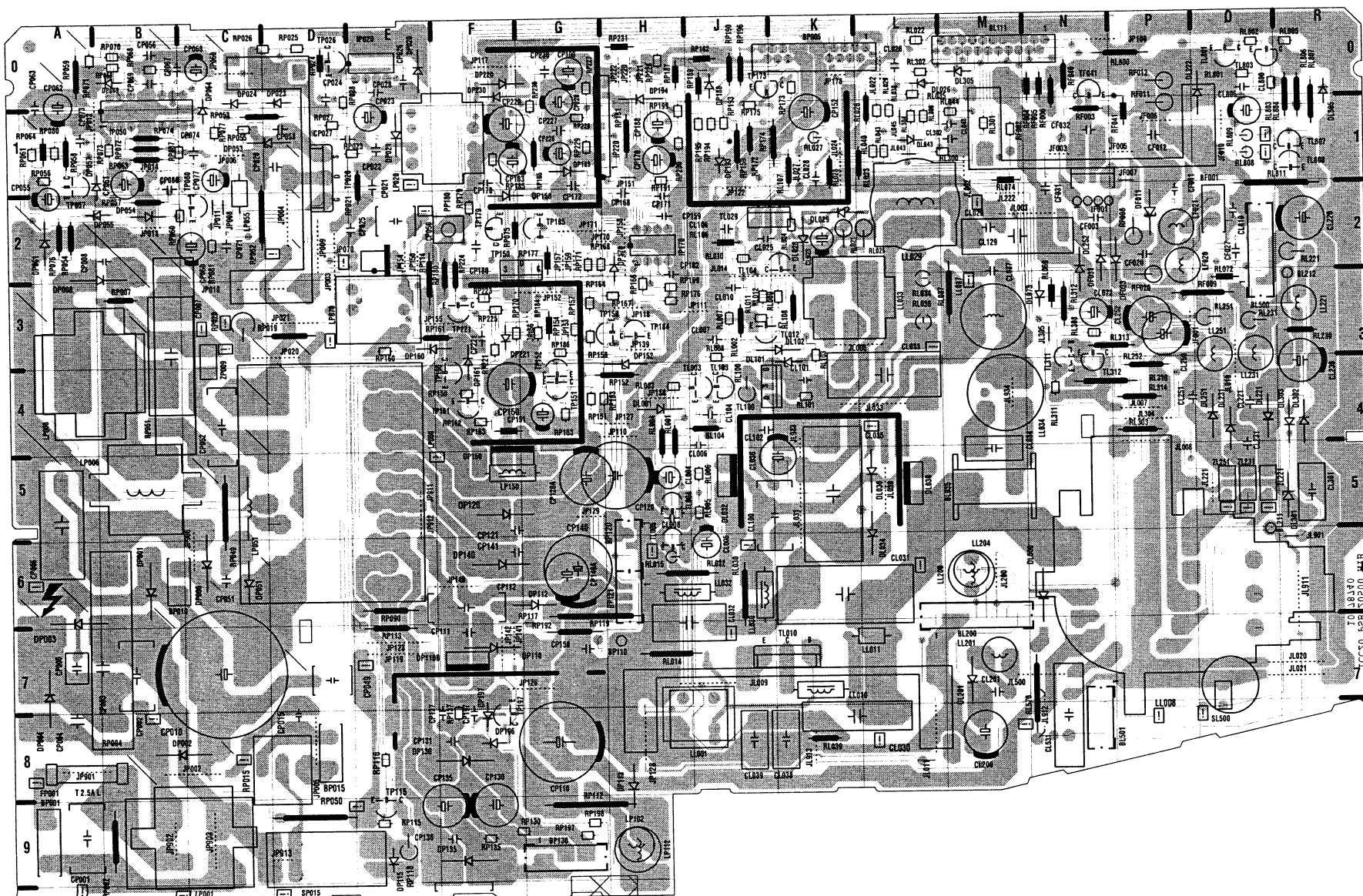


SOLDER SIDE - COTÉ CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE



POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE - NETZTEIL- UND ABLENKPLATINE - PIASTRA DEFLESSIONE / ALIMENTAZIONE - PLACA ALIMENTACIÓN / BARRIDOS

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

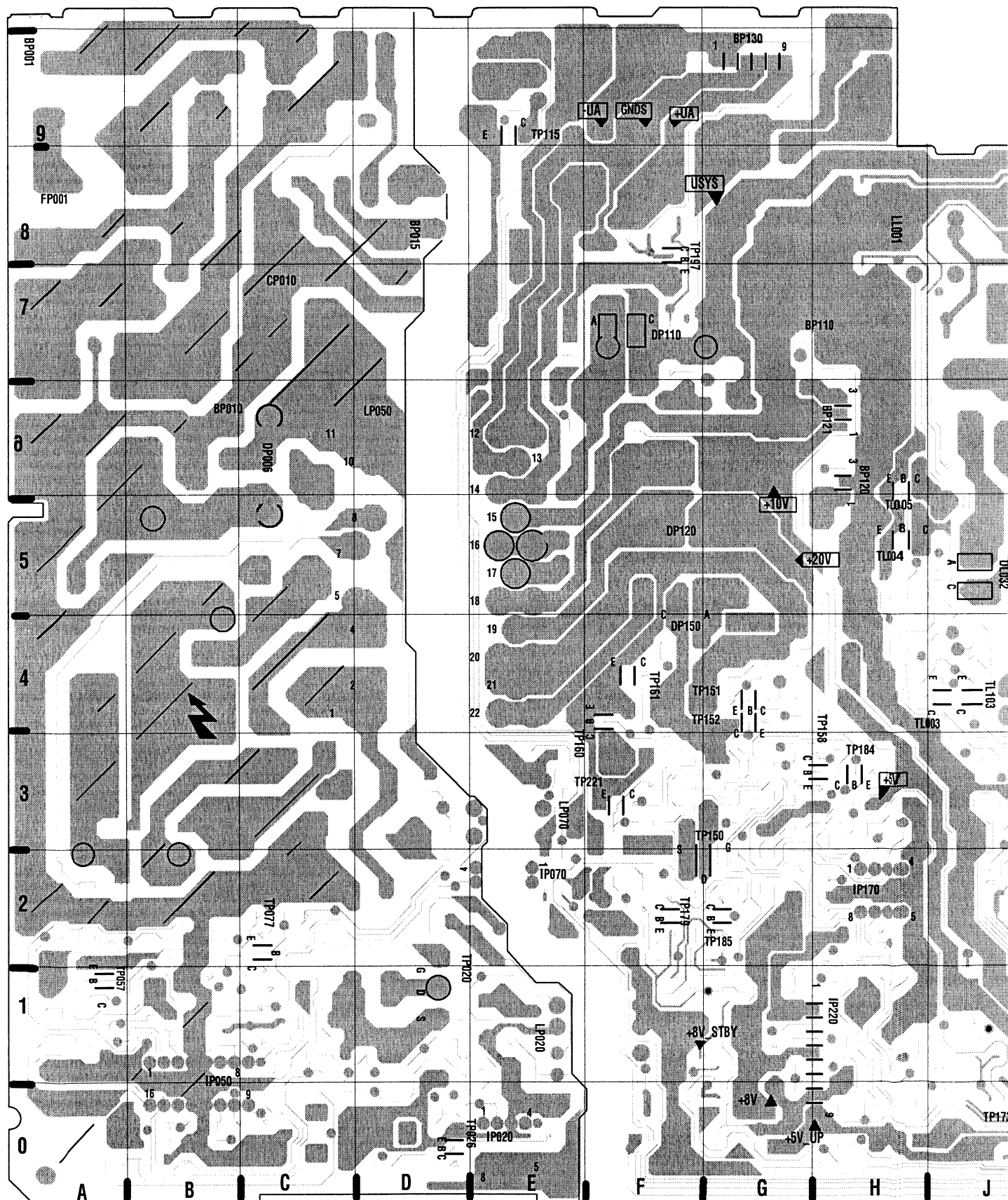


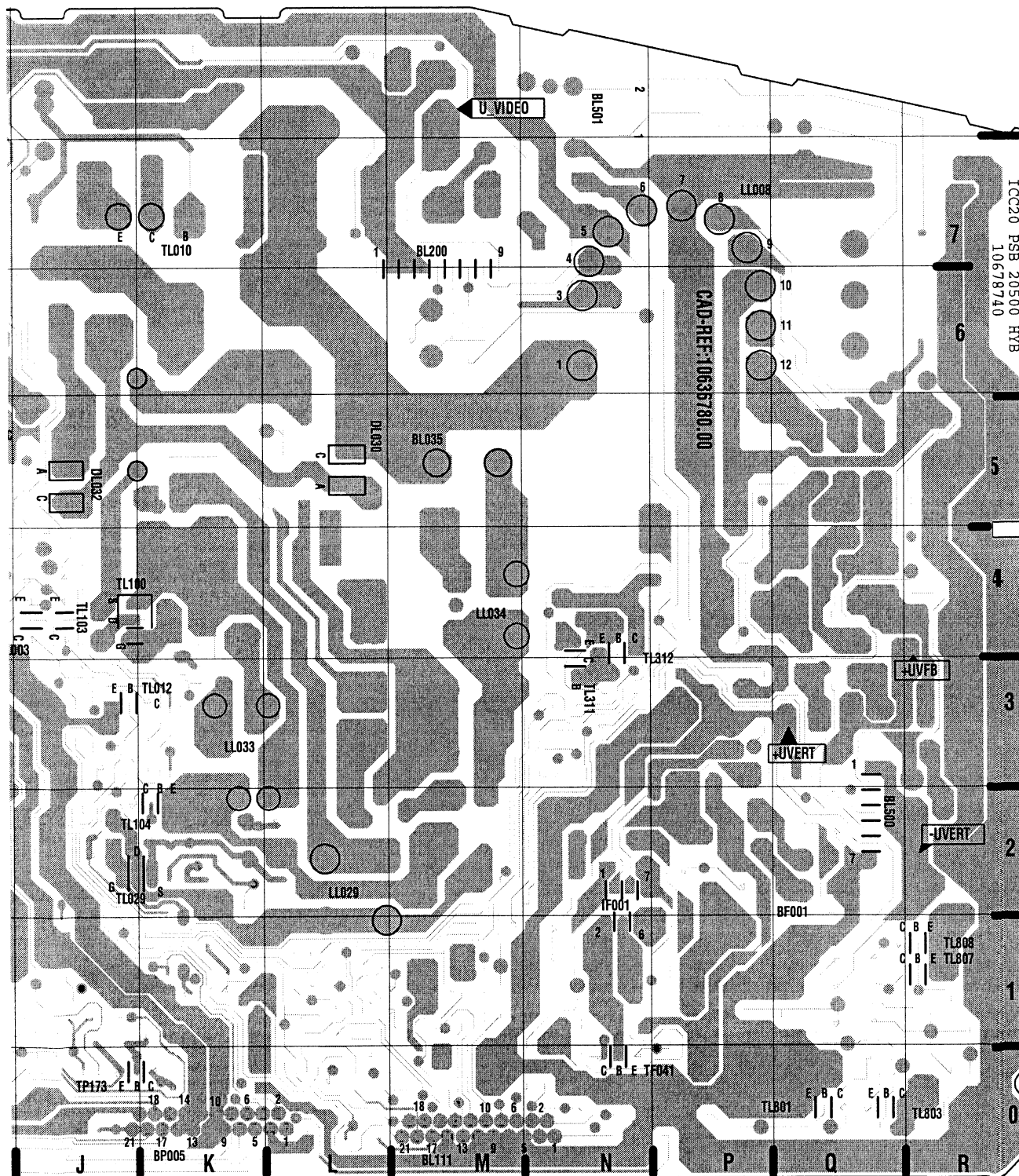
COMPONENT•SIDE•COTE•COMPOSANTS•BESTÜCKUNGSSEITE•LATO•COMPONENTI•LADO•COMPONENTES



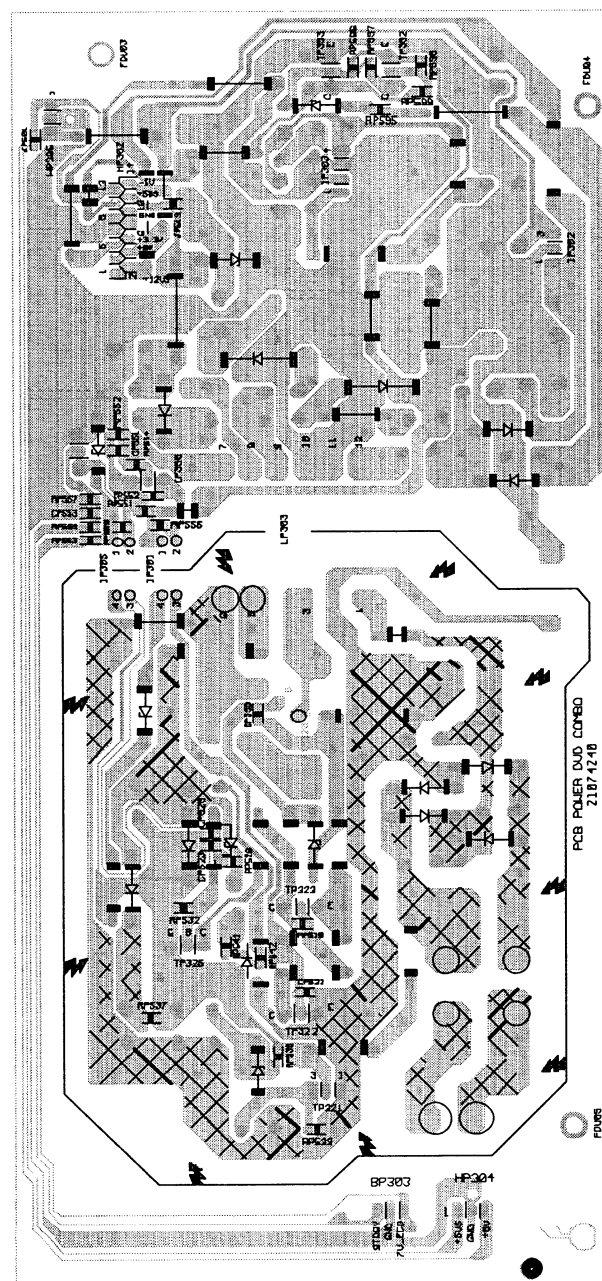
POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE - NETZTEIL- UND ABLENKPLATINE

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

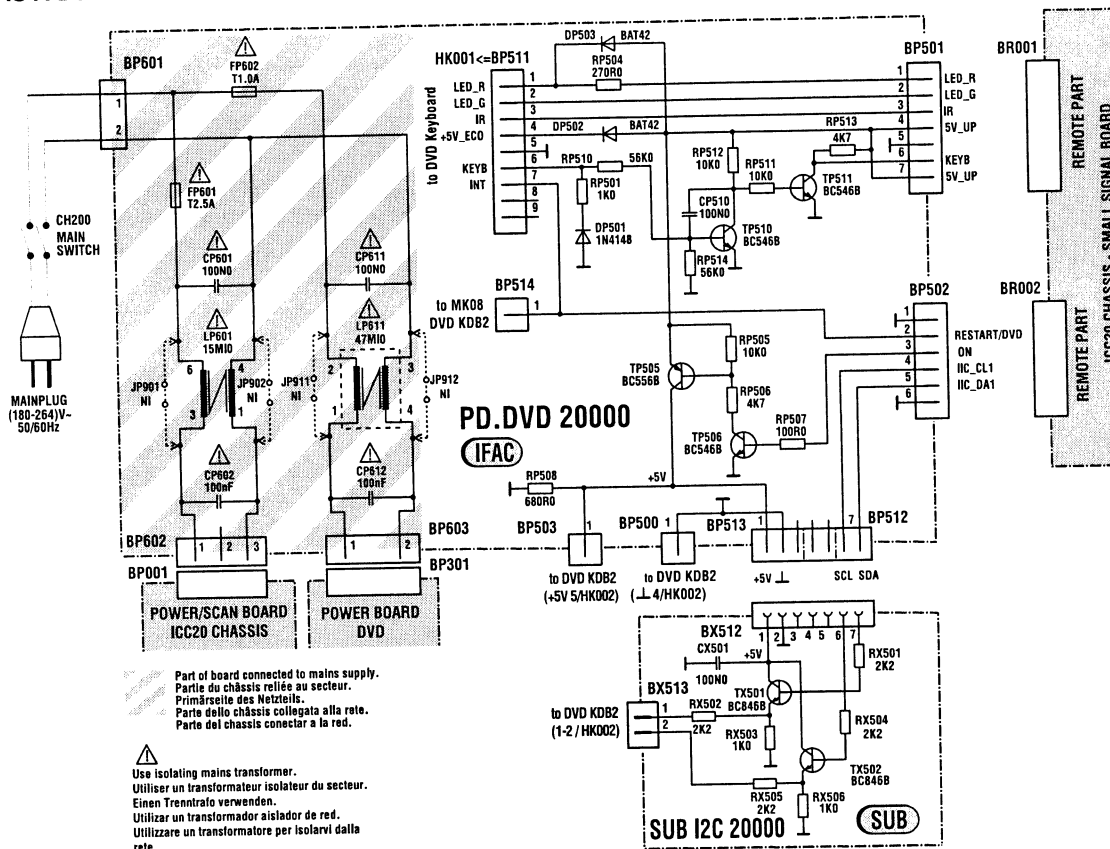




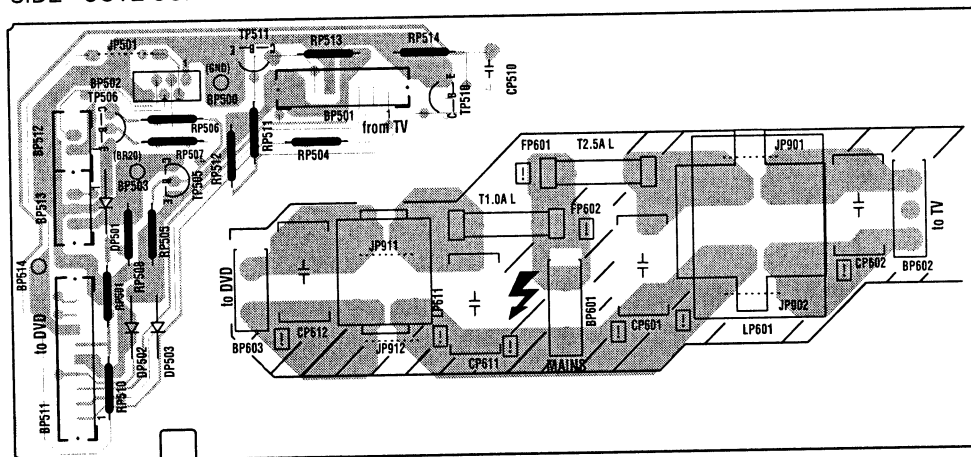
SOLDER SIDE - COTÉ CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE



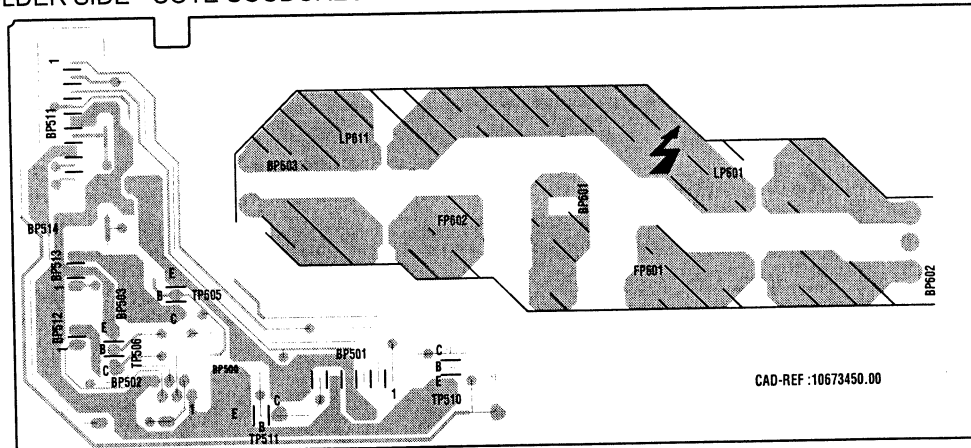
POWER DISTRIBUTION BOARD - INTERFACE SECTEUR - LEITERPLATTE SPANNUNGSVERTEILUNG PIASTRA DISTRIBUZIONE ALIMENTAZIONI - PLACA DE DISTRIBUCION DE LA ALIMENTACION

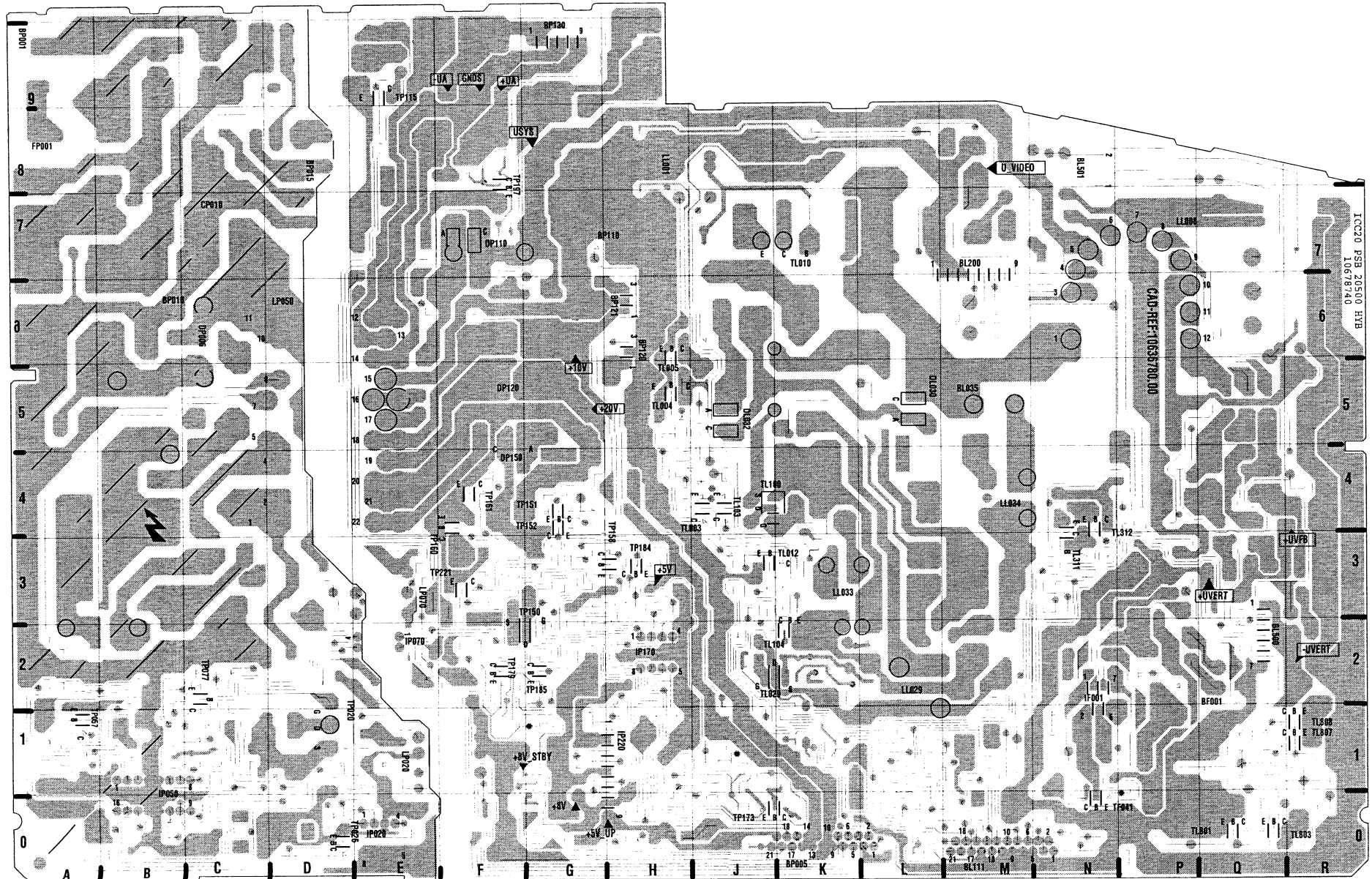


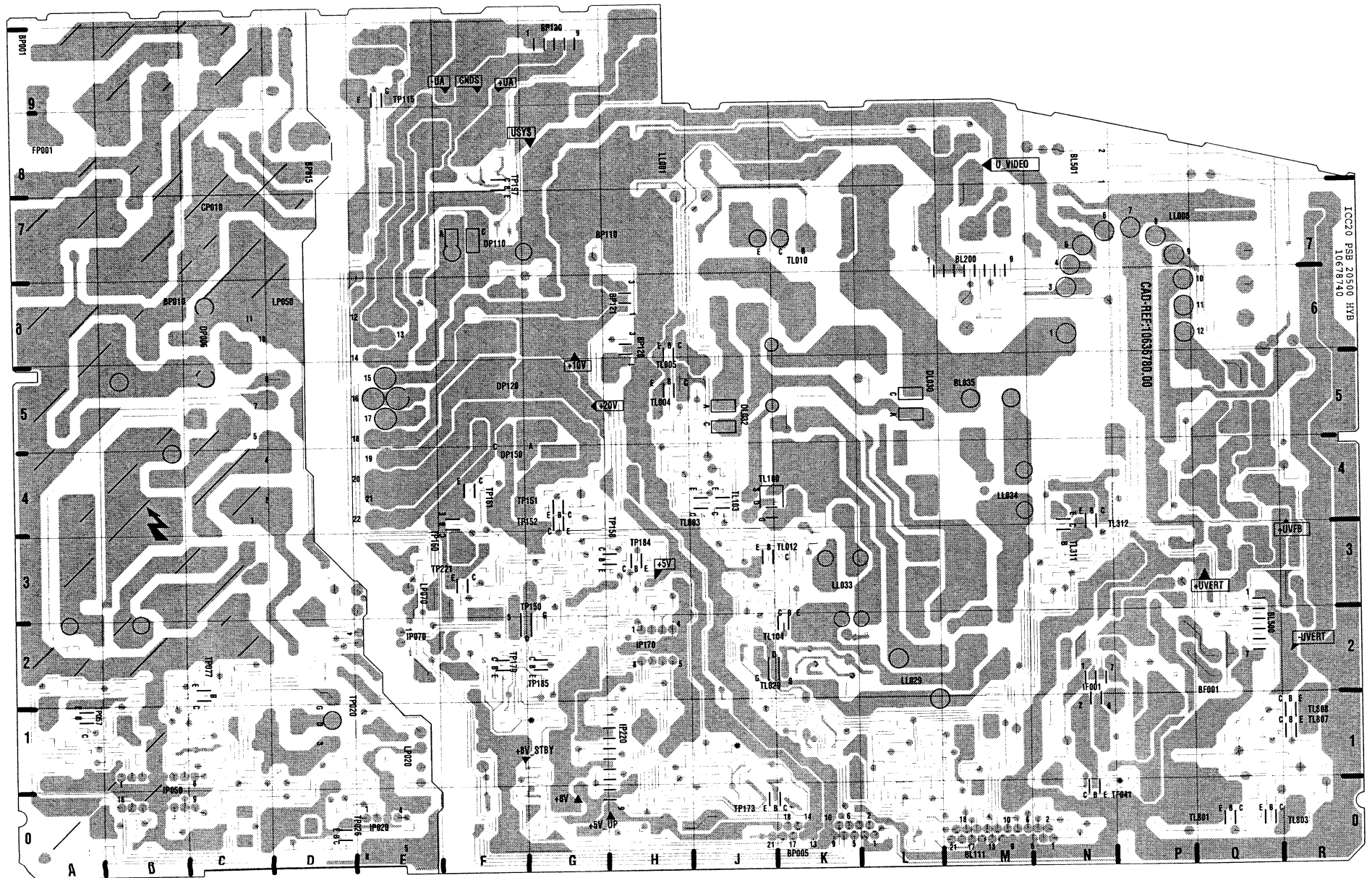
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

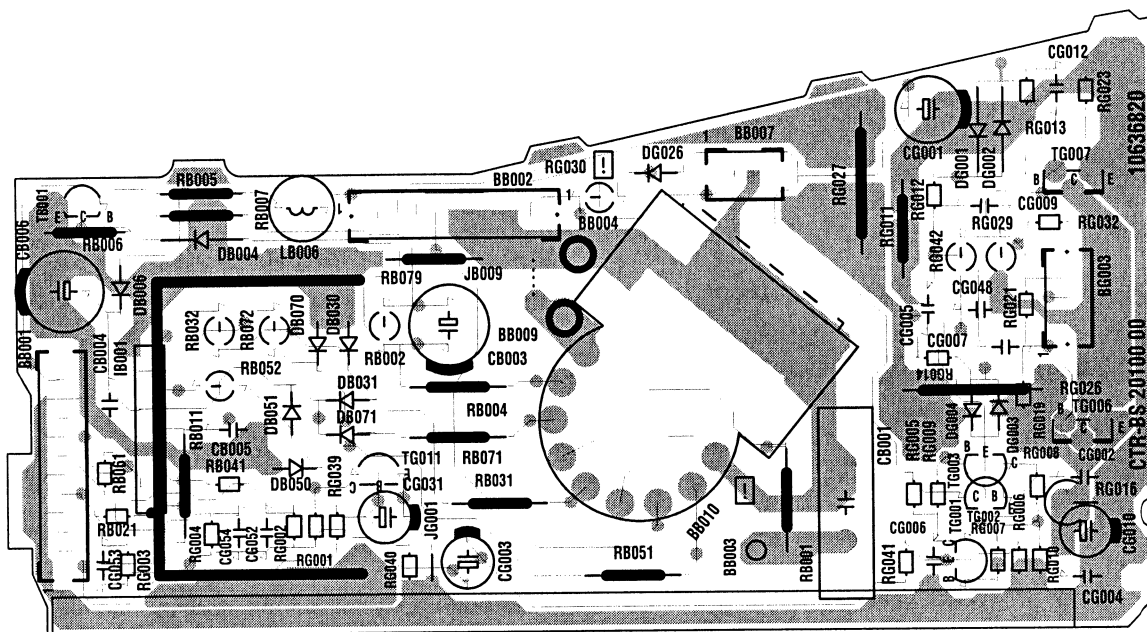




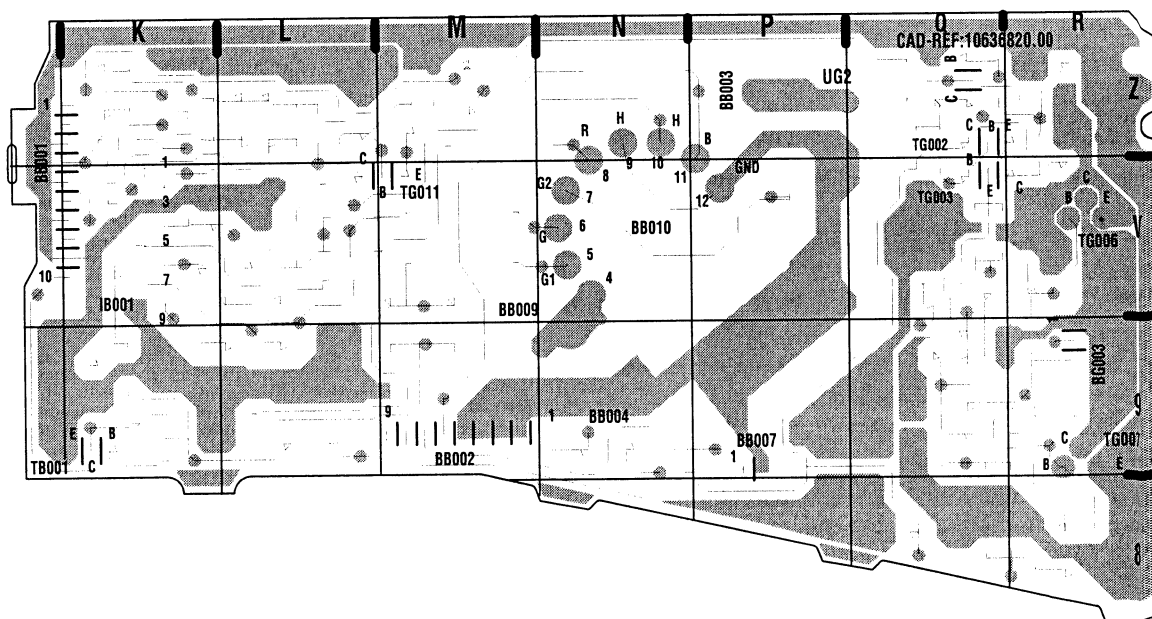


**VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO -
VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO -
PLATINA AMPLIFICADOR VIDEO**

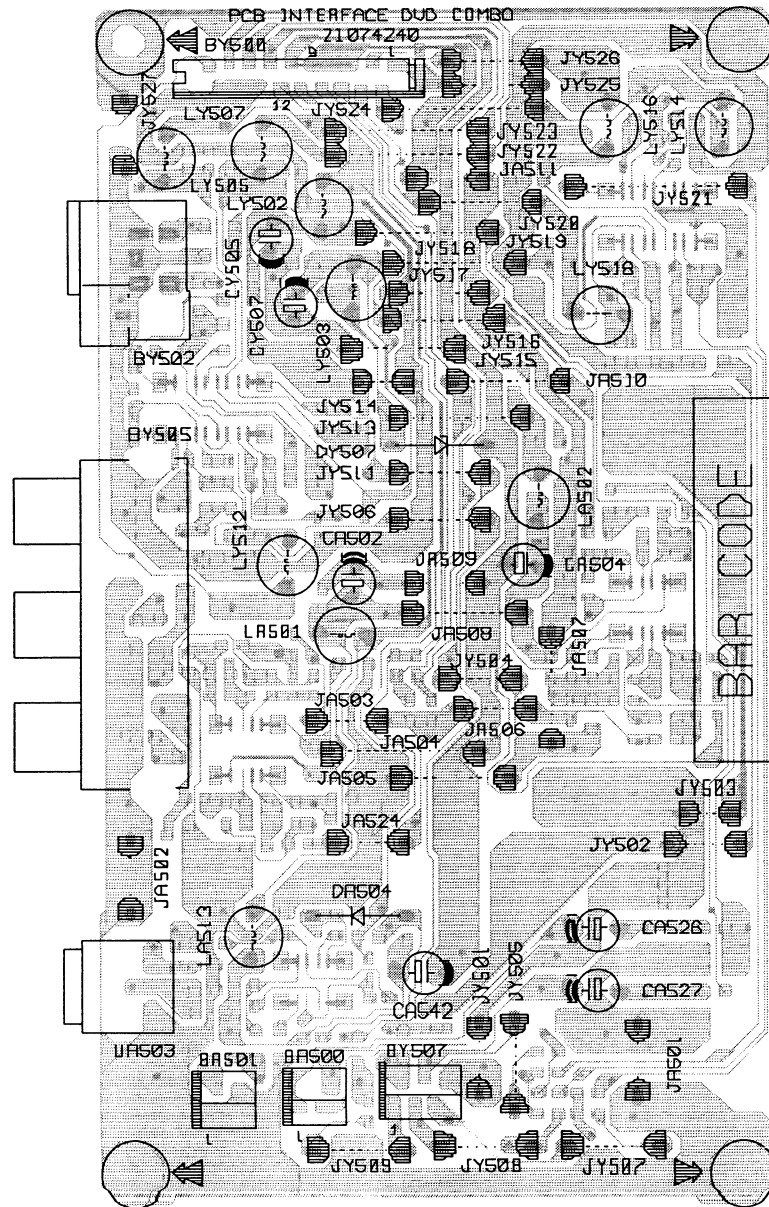
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE -
LATO COMPONENTI - LADO COMPONENTES



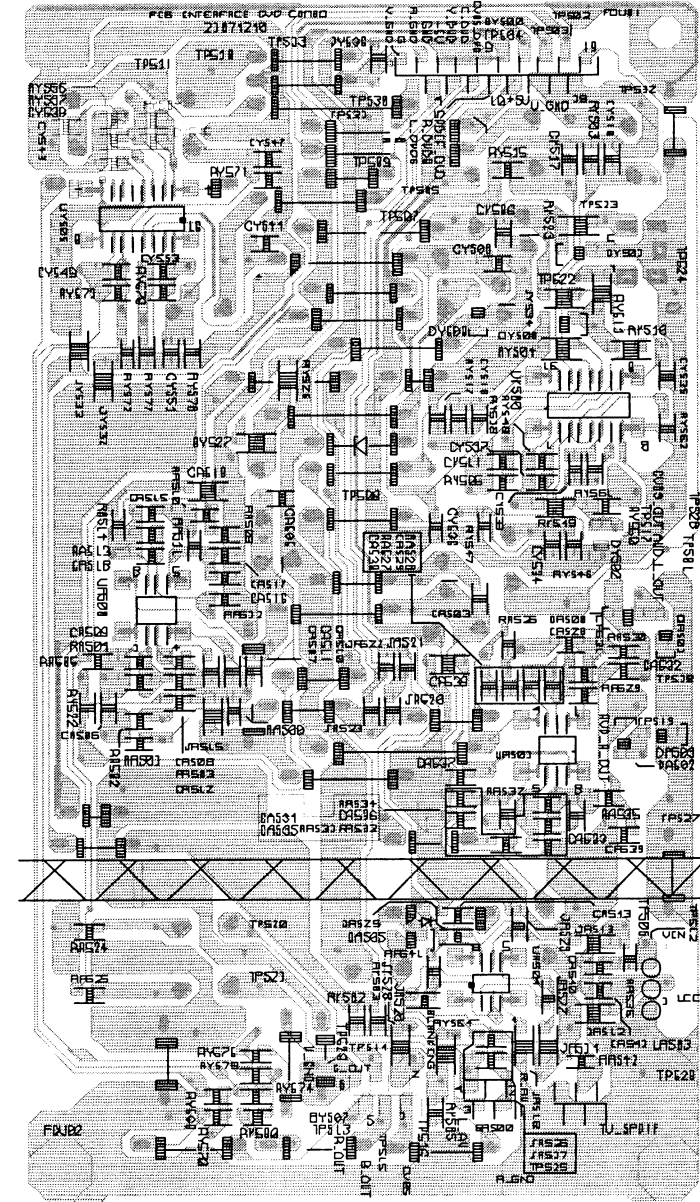
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



COMPONENT SIDE - COTÉ COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

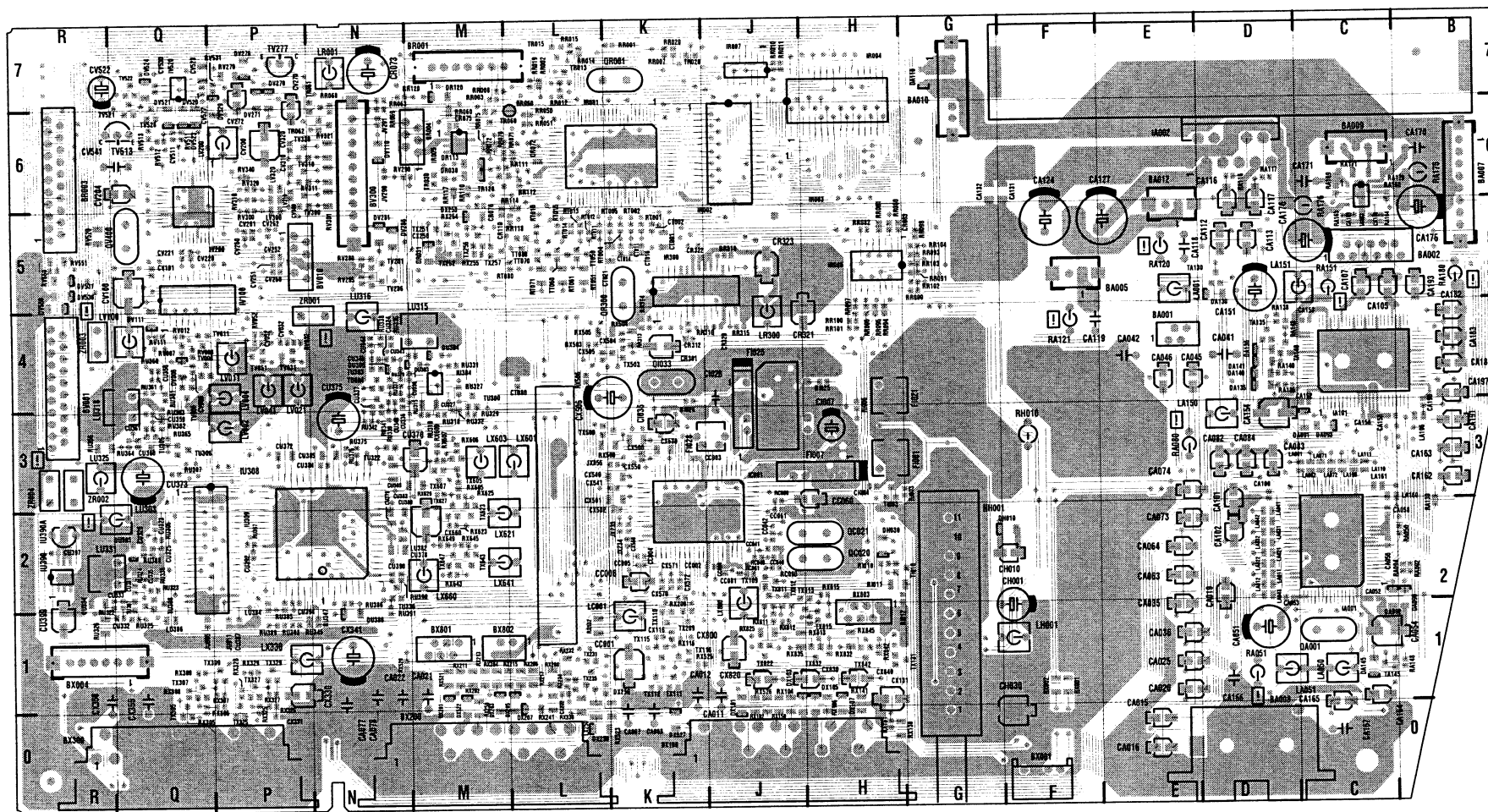


SOLDER SIDE - COTÉ CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE



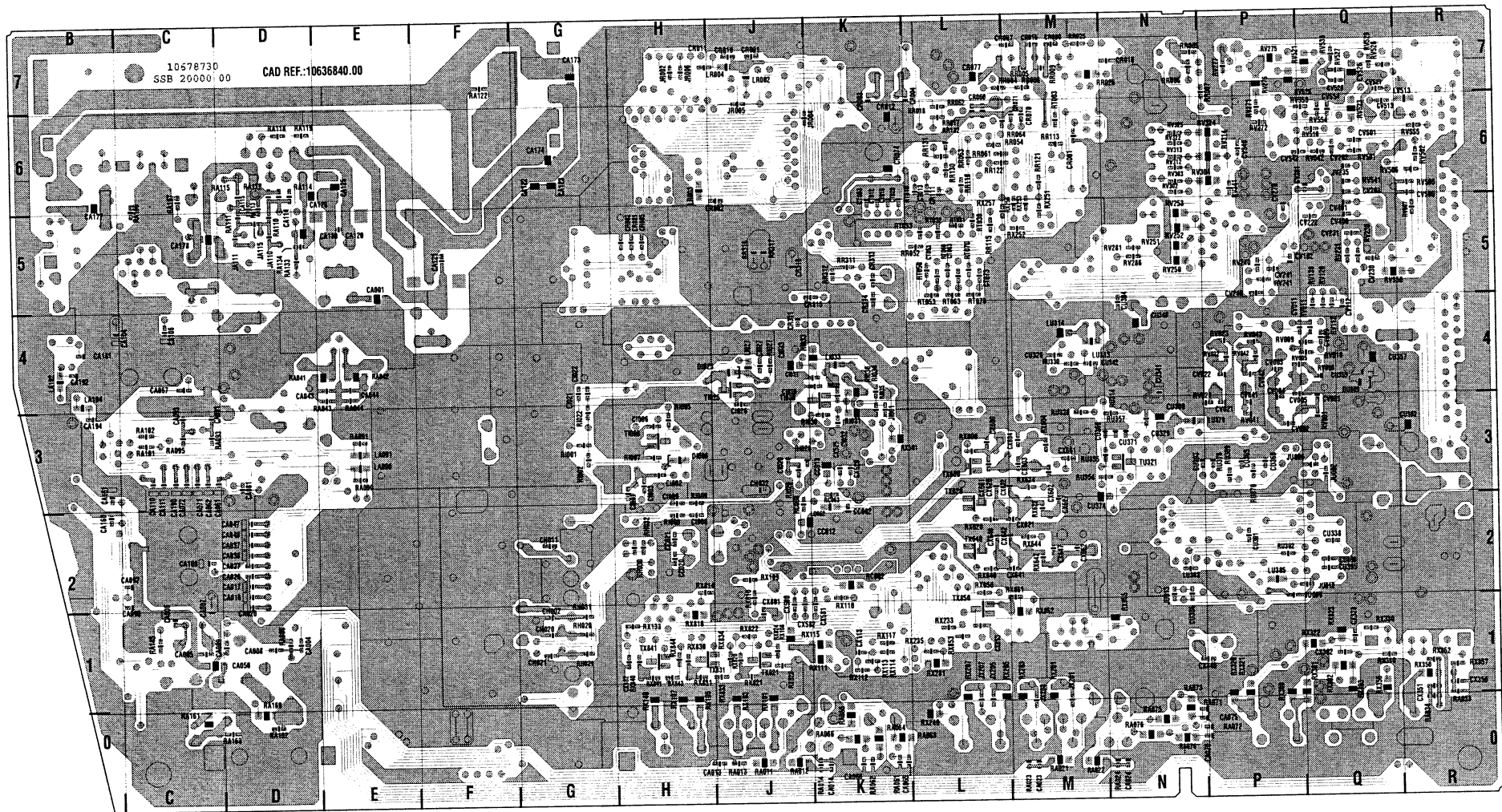
SMALL SIGNAL BOARD - PLATINE PETITS SIGNAUX - SIGNAL-PLATINE - PIASTRA PICCOLI SEGNALI - PLACA PEQUEÑA SEÑAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



SMALL SIGNAL BOARD - PLATINE PETITS SIGNAUX - SIGNAL-PLATINE - PIASTRA PICCOLI SEGNALI - PLACA PEQUEÑA SEÑAL

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



ICC20 Small Signal Board (SSB) exchange method

Escaping production mode

The replacement board will be delivered in the production mode; this can be easily switched to normal operation once the television has been switch ON by pressing and holding the VOL – (minus) button for approximately 5-seconds.

Setting the language

The board will be delivered with its menus in French.

If you want to select another language proceed as follows: -

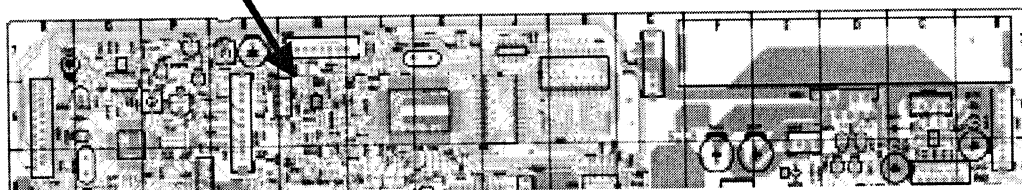
- Press the "Menu" key on the remote control unit (RCU)
- In the "Sommaire" menu select the "Installation" sub-menu, and then select "Reglages personnels".
- In the "Reglages personnels" menu select "Langues des menus".
- Now select the menu language you require, once selected press the "Exit" key on the RCU.

Saving the NVM data

Once fitted, the board has to be aligned and adjusted in the Service Mode, however it is possible to save time by copying the contents of the NVM onto a computer without de-soldering it from the board as follow: -

1. Force the microprocessor into the reset mode by connecting the **reset** pin to ground. The best point to pull down the **reset line** is at the cathode of diode DR120 (not fitted).
2. Temporally re-connect the faulty SSB board.
3. Switch "ON" the television.
4. Now the contents of the NVM can be saved to a PC via the TECI bus, an interface kit for copy the NVM content is available from After Sales under Part No. **10613570**

Cathode of diode DR120



Service Mitteilungen

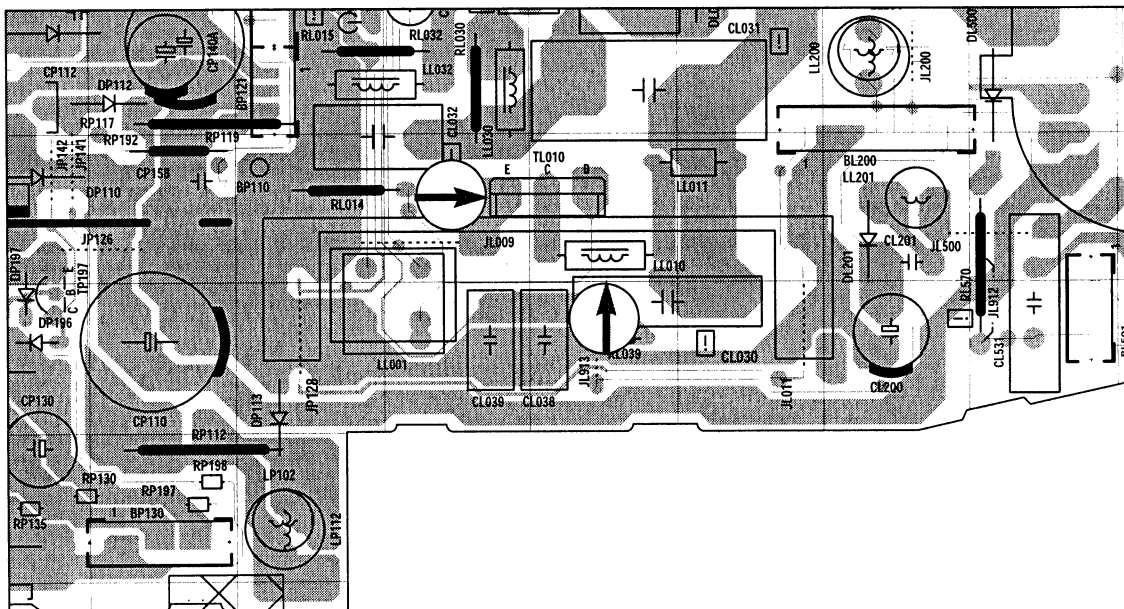
Betroffene Geräte/Chassis : ICC20

Symptom :

Heller vertikaler Streifen in der Mitte des Bildes.

Abhilfe :

Parallel zur Spule LL010 eine Diode RGP15G, ET-Nr. 102 728 00, löten. Die Kathode an den Kollektor des Transistors TL010.



IRIS CODE: Der Code, wie unten beschrieben, wird gebraucht um die Fehler im Garntiepapier aufzuführen. Es wird damit beabsichtigt Ihnen den Bericht leichter und zuverlässiger zu machen.

Zustand/ Symptom	Teilenummer	Menge	Position	Sektion	F.Code	R. Code
1 3 2 x	1 0 2 7 2 8 0 0	0 1	T L 0 1 0	D F L	Z	K

Die weißen Kästchen müssen nicht ausgefüllt werden. ☐

TECHNICAL INFORMATION

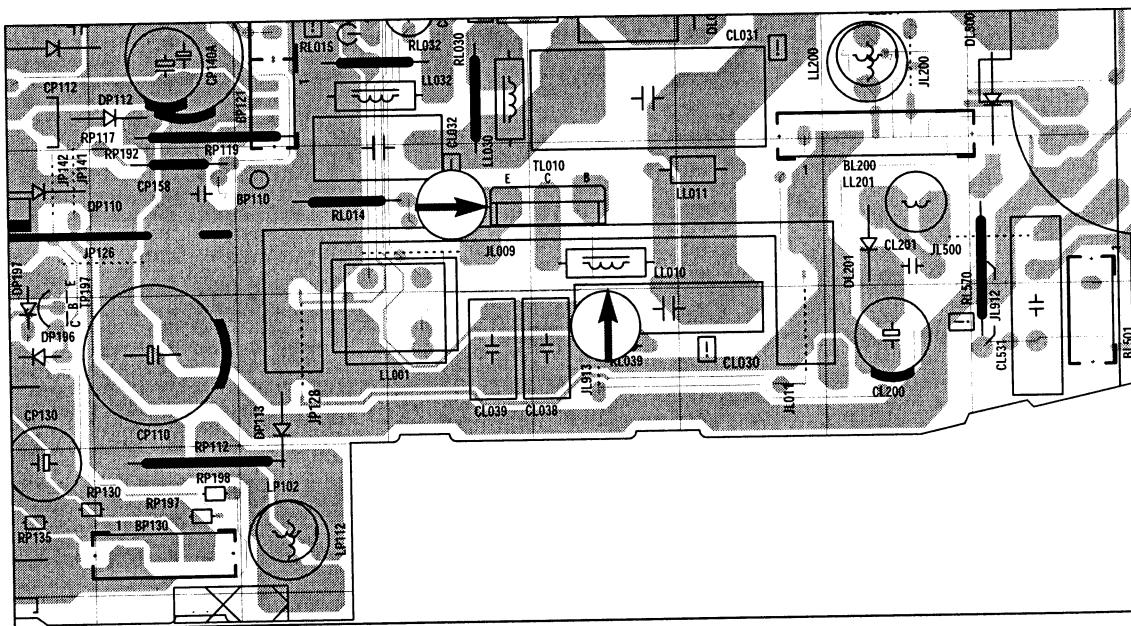
Finished products / Chassis concerned : ICC20

Symptom / Problem observed :

Light vertical band down the centre of the screen.

Solution :

Solution :
Add an RGP15G diode (**Part No. 10272800**) in parallel with inductor LL010 on copper side of the power and deflection printed circuit board. (diodes cathode to the collector of TL010)



IRIS CODE : The code mentioned below must be used to report the failure in the warranty sheet. It is proposed to make your report easier and more reliable.

Condition/ Symptom/	Part Code Number	Qty	Position	Section	Fault Code	Repair Code
1 3 2 X	1 0 2 7 2 8 0 0	0 1	D L 0 1 2	D F L	Z	K

You do not need to write anything in the white boxes

TECHNICAL INFORMATION

Finished products / Chassis concerned : ICC20

Object / Improvement of the demodulated picture in L standard (France only)

Symptom / Problem observed :

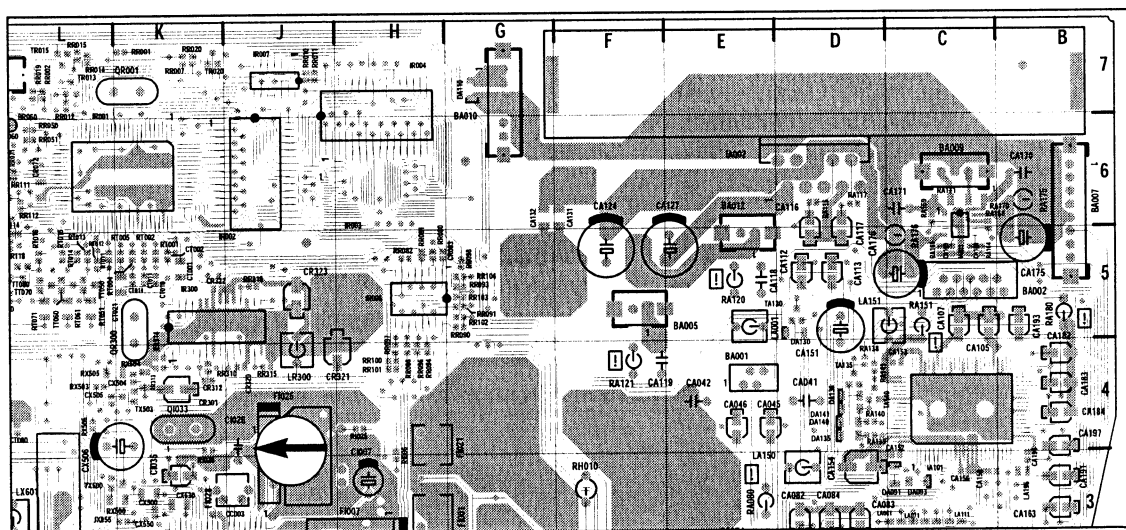
Light horizontal band at the top of the picture, mainly visible on programme 5. (Ia 5 & Arte)

Cause :

AGC too time constant too fast.

Solution :

Replace metalised polyester capacitor in position CI028 (1 μ F) by 2.2 μ F 50V. **(Part N° 13085600)**



IRIS CODE : The code mentioned below must be used to report the failure in the warranty sheet. It is proposed to make your report easier and more reliable.

Condition/ Symptom/	Part Code Number	Qty	Position	Section	Fault Code	Repair Code
1 3 2 X	1 3 0 8 5 6 0 0	0 1	C I 0 2 8	I F C	Y	A

You do not need to write anything in the white boxes

PARTS LIST
LISTE PIECES DETACHEES
ERSATZTEILLISTE
LISTA PARTI DI RICAMBIO
LISTA DE PIEZAS DE REPUESTO

THOMSON
32WT45ES
Chassis ICC20 TV / DVD

MODULES

PSB	C20PB20 B*PW***0* 00	10675420
SSB	C20SB20 B5**08RD31	10684580
AUDI	PA/SW20000	10626290
IFAC	POWER DISTRIBUTION	10673240
MPEG	MPEG	21054290
SMPS	SMPS	21049990
IFAC	AV INTERFACE	21054300
KB	KDB1-2	21049130



FP360,362, ZP009	MP315	△ 10575090
FP361	RXE025	△ 10529720
FP390	RXE090	△ 10529790
GK101	TSOP1333	25358570
IA000	TDA7298	10348810
IB001	TDA6108JF	10616240
IF001	TDA8177F	10352880
IK001	TMP87PS38F OTP S2.0 FLAT	21055500
IK003	TFMS5330B	20627780
IP020	VIPER20DIP	25408950
IP050	TEA2262	10495720
IP070,301,305	TLP621 GR(D4-LF2 T)	△ 20827900
IP170	LM393/NJM2903D	46069900
IP220	TDA8139	10044580
IP302	MC7808CT	10263430
IP303	PQ3RD13	15168930
IP350	TL431	15069010
UA500,501	MC33078D FLAT	10319560
UY500,505	TSH94D FLAT	15282180
ZL221,251	MP125	△ 10469180
ZL231	MP40	△ 10469170



TA401,TF041, TL103,312,803, TP173,179,505	BC556B	16001020
TB001,TL311	BF422	16003090
TG001	BF199	16002950
TG002	BF370	25420830
TG006	BD140-16	25425020
TG007	BD139-16	16001760
TG011,TL003, 104,801,TP026, 080,115,151, 152,158,160, 161,184,185, 197,221,506, 510,511	BC546B	45001866
TK001	BC848B SMD	16006290
TL004	MPSW01A	70436520
TL005	MPS750	16001340
TL010	ON4977/BU2525AX	10461310
TL029,100	STP10NB20FP	25414550
TL807	BC327-40	16000450
TL808,TP057	BC337-40	45001466
TP020	STH13NB60FI	25381050
TP150	STP22NE03L (T0220)	25341950
TP320	2SK2605	△ 20880040
TP321	MCR106-6 400V 4A	20813760
TP322,393	BC548B	16000930
TP323	KTC8550D	21039270
TP325,350,392	BC558B	16001110



DA400,DG001, 002,003,004, DL001,073,805, DP024,054,055, 057,064,069, 115,158,160, 161,170,183, 188,193,194, 196,197,221, 230,501	1N4148	44009209
DA500,501,502, 503,DY500,501, 502	BZT55C15 SMD	15187290
DB004	1N4004	44009009

DB006,030,031, 050,051,070, 071,DL043,305, DP023,342	BAV21	44044407
DF011	BZW04-58	10368210
DF031,033, DL302,303, DP061,220,361	RGP10G	10459090
DG026	BZX55C6V8	50890650
DK005	LL4148 SMD	16012450
DK006	BZT55C5V1 SMD	15196090
DK007	ZMM2,7 SMD	16030100
DL028,222,252	1N4001	16008160
DL029	RGP02-20	10472330
DL030	DTV32F-1500	10452490
DL032	STTA806DI	25422190
DL034,036,102	EGP10D	20953640
DL101	BZX55C13	70438310
DL201,DP112	MUR1100E	10360280
DL221,251	FUF5402	10458530
DL231,DP020, 051,113	FUF4005/MUR160	16009580
DL301	BZX85C18	50890010
DP001,002,003, 004,006	GP30M	10455410
DP008	FUF5404	20150190
DP021	RGP10M	10455320
DP053,333	BZX55B15/ZPD15 2%	80444020
DP110	BYT08PI-1000	25442210
DP120,140	S410D	10527250
DP130,135	MUR420	16009630
DP150	BYW29-150	16009140
DP152	ZPD10 2%	80444160
DP301,302,303, 304	BYW27-1000	10455390
DP323,330	ZPD8,2	44021504
DP324	ZPD24	44016504
DP325,337,390, 391	RGP15G	10272800
DP350	ZPD4,7/BZX55C4V7	20475400
DP360,362	1N5822	44058204
DP392	BZX55B5V1/ZPD5V1 2%	44035702
DP502	BAT42	16007410
GE101	TLUV5300 LED	11137650
GK001	LTL-1BEHJ OG/P-GN	21085280

R : RECYCLED PART
 : PIECE RECYCLEE
 : AUSTAUSCHTEILE
 : RICAMBIO RICICLATO
 : MODULO REPROCESADO

For any requests, please contact THOMSON multimedia after sales service area
 Pour toutes précisions, contactez votre service apres vente local THOMSON multimedia
 Für weitere Auskünfte, wenden Sie sich bitte an die THOMSON multimedia Kundendienste
 Per precisazioni, contattate l'assistenza tecnica THOMSON multimedia
 Para cualquier pregunta, por favor contactar con el responsable de zona del servicio postventa de THOMSON multimedia

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QK001	8MOHZ		21063030
			
LF021	2200H 10% 1,6A		10470180
LL029	OST-WEST SPULE		10347650
LL034			10679870
			
PP180	1K0 OHM		70434550
			
RA407	4R7 OHM 5% 0,35W	△	10226310
RB001,004	1K5 OHM 5% 0,50W		10121880
RB031,051,071	560R0 OHM 10% 0,50W		10257590
RB032,052,072, RE102,RP181	100R0 OHM 5% 0,25W		30943330
RF003,006	1K3 OHM 1% 0,40W		15012810
RF008	1R5 OHM 1% 0,70W		10451140
RF011,012	1R82 OHM 1% 0,70W		10451420
RG026,027	3K3 OHM 5% 3W		30941170
RG030,RL008, 809	22R0 OHM 5% 0,25W	△	35031220
RK101	453R0 OHM 1% 0,250W		15018140
RK102	681R0 OHM 1% 0,25W		15020310
RK103	1K5 OHM 1% 0,25W		80437630
RK104	3K32 OHM 1% 0,25W		15017270
RL015	6R8 OHM 5% 0,25W	△	41023309
RL021	1R21 OHM 1% 0,70W		13010820
RL022,RP228	1K0 OHM 1% 0,25W		15012570
RL023	3M9 OHM 2% 0,40W		13057750
RL024	100K0 OHM 1% 0,25W		15010160
RL025	1R0 OHM 1% 0,70W		10254220
RL027	2K2 OHM 5% 0,50W	△	10239310
RL037	330R0 OHM 10% 0,50W		14050190
RL044	536K0 OHM 1% 0,25W		15019140
RL100,221,251	0R27 OHM 5% 2,50W		10263600
RL231	4R7 OHM 5% 2,5W		10471330
RL303	33K2 OHM 1% 0,25W		15016530
RL308	15K0 OHM 1% 0,25W		15011700
RL310	46K4 OHM 1% 0,70W		10403710
RL311	2K21 OHM 1% 0,25W		15015480
RP004	2R7 OHM 5% 4,50W		10379110
RP015	18R0 OHM 220V PTC	△	41398800
RP020	100R0 OHM 5% 0,75W	△	10230030
RP049	33R0 OHM 5% 2W		50888890
RP050	10M0 OHM 5% 0,70W	△	20564520
RP051	100R0 OHM 5% 4,50W		10379830
RP052	0R1 OHM 5% 2,50W	△	10288160
RP090	22K1 OHM 1% 0,25W		60442350
RP179	8K25 OHM 1% 0,25W		15021830
RP180	205K0 OHM 1% 0,40W		15013970
RP227	2K26 OHM 1% 0,25W		15015500
RP320,361	1R0 OHM 5% 2,50W		10383240

			
CB001	10N0F 3K0V		14036450
CB004,CL043	100N0F 20% 250V		13072860
CF020	100N0F 10% 100V		20467110
CL030	1N9F 2,5% 2K0V		10532420
CL031	11N6F 2,5% 2K0V		40406501
CL032	33N0F 5% 400V		10076920
CL033	68N0F 5% 400,0V	△	10552180
CL034	12N0F 2% 400V		10672180
CL035	41N0F 5% 400V		10180780
CL038,039	27N0F 5% 250V		50895120
CL100	150N0F 5% 250V		10647360
CL201,221,231, 251	330P0F 20% 1K0V		14035270
CL301	10N0F 5% 400V		10588870
CP001,002,601, 602,611,612	100N0F 20% 275V	△	10331520
CP003,004,005, 304	4N7F 1K0V		10058740
CP006	470N0F 10% 400V		10469630
CP007	560N0F 5% 250V		10376360
CP008,051,121, 131,136,141	470P0F 10% 2K0V		10099390
CP010	390U0F 20% 400V		25444380
CP015	68N0F 20% 250V		10256210
CP020,022	220P0F 10% 1K0V		25460410
CP021	1N0F 5% 400V		13055520
CP049	1N5F 20% 400V	△	10442770
CP050	150P0F 20% 400V	△	20738090
CP052,112	2N2F 10% 1K0V		13090980
CP111	470P0F 10% 2K0V		25392030
CP301,302	100N0F 20% 275V	△	40404090
CP305,306	1N5F 10% 1K0V		20338740
CP308	47U0F 20% 385V	△	50844400
CP309	2N2F 20% 1K0V		43325400
CP315	1N0F 20% 400V	△	43106800
CP362,363,392	1N0F 20% 1K0V		20388780
			
LL001			10669660
LL008	DSTFBT 1372.0054	△	10675710
LL033			10347660
LL037		△	10518250
LP001,601		△	10203560
LP020	STAND-BY	△	25425970
LP050	SMT7LZ	△	10643540
LP070	DRIVER	△	60412091
LP301,611		△	20247580
LP303	TFSMT	△	2105993A

OTHER PARTS AUTRES PIECES SONSTIGE TEILE ALTRE PARTI OTRAS PIEZAS			
BB010	CATHODE RAY TUBE SOCKET SUPPORT TUBE CATHODIQUE BILDROEHRENFASSUNG SUPPORTO TUBO CATODICO SOPORTE T.R.C	△	80298800
BJ010	CINCH SOCKET PRISE CINCH CINCH-BUCHSE PRESA CINCH TOMA CINCH		10037440
BJ011	SVHS SOCKET PRISE SVHS S-VHS-BUCHSE PRESA SVHS TOMA SVHS		20392900
BK004	CABLE 6X 255MM CABLE NAPPE 6X 255MM FOLIENKABEL 6X 255MM CAVO DI COLLEGAMENTO 6X 255MM CABLE 6X 255MM	△	21089390
BK005	CABLE 11X 340MM CABLE NAPPE 11X 340MM FOLIENKABEL 11X 340MM CAVO DI COLLEGAMENTO 11X 340MM CABLE 11X 340MM		21082290
BQ012	JACK SOCKET PRISE JACK BUCHSE PRESA JACK TOMA JACK		10539510
BU702	CABLE 19X 70MM CABLE NAPPE 19X 70MM FOLIENKABEL 19X 70MM CAVO DI COLLEGAMENTO 19X 70MM CABLE 19X 70MM		21067570
BY500	CABLE 19X 70MM CABLE NAPPE 19X 70MM FOLIENKABEL 19X 70MM CAVO DI COLLEGAMENTO 19X 70MM CABLE 19X 70MM		21063420
BY502	SVHS SOCKET PRISE SVHS S-VHS-BUCHSE PRESA SVHS TOMA SVHS		20862120
BY505	CINCH SOCKET 3 ASSY ENSEMBLE 3 PRISES CINCH CINCH 3 BUCHSEN-EINHEIT ASSIEME 3 PRESA CINCH CONJUNTO 3 TOMA CINCH		21063440
CH200	ON/OFF SWITCH CONTACTEUR MARCHE/ARRET EIN-AUS SCHALTER CONTATTATORE ACCESO/SPENTO CONTACTOR MARCHA/PARADA	△	10276500
CJ015	CABLE WITH CONNECTOR 9 PINS 340MM CABLE AVEC CONNECTEUR 9 VOIES 340MM KABEL MIT VERBINDER 9 PINS 340MM CAVO CON CONNETTORE 9 SPINOTTI 340MM CABLE CON CONECTOR 9 PUNTOS 340MM		10231790

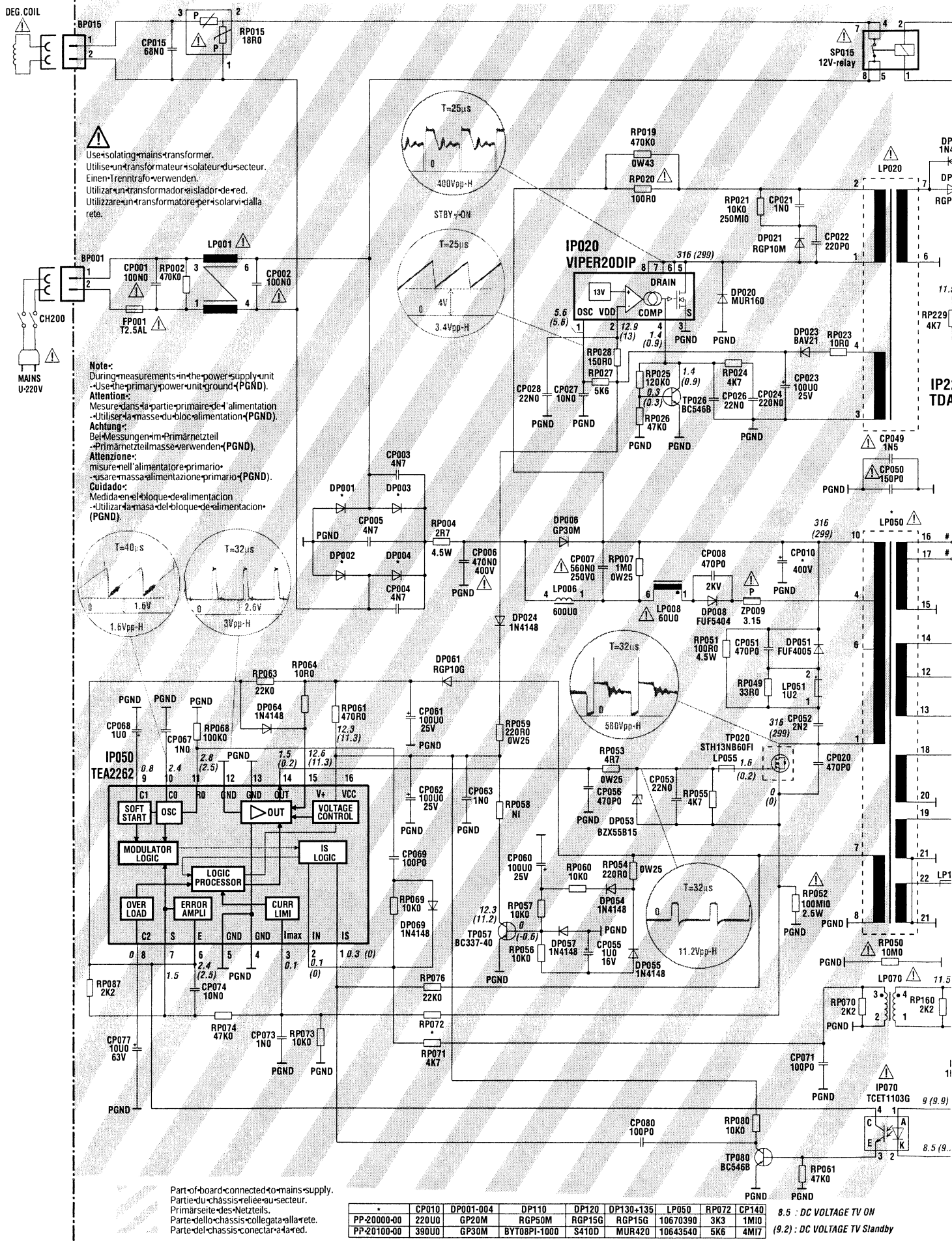
CJ016	CABLE WITH CONNECTOR 3 PINS 220MM CABLE AVEC CONNECTEUR 3 VOIES 220MM KABEL MIT VERBINDER 3 PINS 220MM CAVO CON CONNETTORE 3 SPINOTTI 220MM CABLE CON CONECTOR 3 PUNTOS 220MM	25459200	CJ145	CABLE WITH CONNECTOR 8 PINS 300MM CABLE AVEC CONNECTEUR 8 VOIES 300MM KABEL MIT VERBINDER 8 PINS 300MM CABLE CON CONNETTORE 8 SPINOTTI 300MM CABLE CON CONECTOR 8 PUNTOS 300MM	25019130	KNOB OPEN/CLOSE TOUCHE OPEN/CLOSE TASTE OPEN/CLOSE TASTO OPEN/CLOSE TECLA OPEN/CLOSE	21050650
CJ020	CABLE WITH CONNECTOR 10 PINS 340MM CABLE AVEC CONNECTEUR 10 VOIES 340MM KABEL MIT VERBINDER 10 PINS 340MM CAVO CON CONNETTORE 10 SPINOTTI 340MM CABLE CON CONECTOR 10 PUNTOS 340MM	10526610	CJ490	CABLE WITH CONNECTOR 7 PINS 260MM CABLE AVEC CONNECTEUR 7 VOIES 260MM KABEL MIT VERBINDER 7 PINS 260MM CAVO CON CONNETTORE 7 SPINOTTI 260MM CABLE CON CONECTOR 7 PUNTOS 260MM	25348010	BUTTON STRIP TV CONTROL BARRETTE DE TOUCHES TV CONTROL TASTENLEISTE TV CONTROL PIATTINA TASTI TV CONTROL PLACA DE TECLAS TV CONTROL	21050800
CJ030	CABLE WITH CONNECTOR 6 PINS 500MM CABLE AVEC CONNECTEUR 6 VOIES 500MM KABEL MIT VERBINDER 6 PINS 500MM CAVO CON CONNETTORE 6 SPINOTTI 500MM CABLE CON CONECTOR 6 PUNTOS 500MM	25460570	FP001,601,602	2A5T TIME-LAG FUSE 2A5T FUSIBLE TEMPORISE 2A5T THERMISCHE SICHERUNG 2A5T FUSIBILE TEMPORIZZATO 2A5T FUSIBLE TEMPORIZADO	△ 10246750	BUTTON STRIP NAVIGATION BARRETTE DE TOUCHES NAVIGATION TASTENLEISTE NAVIGATION PIATTINA TASTI NAVIGAZIONE PLACA DE TECLAS NAVEGACION	21050710
CJ035	CABLE WITH CONNECTOR 3 PINS 580MM CABLE AVEC CONNECTEUR 3 VOIES 580MM KABEL MIT VERBINDER 3 PINS 580MM CAVO CON CONNETTORE 3 SPINOTTI 580MM CABLE CON CONECTOR 3 PUNTOS 580MM	30020170	SK001,002, 003,004,005, 015,016,017, 018,019,020, 021,022,023, 024,025	MICROSWITCH MICRO CONTACTEUR MIKROSCHALTER MICROINTERRUTTORE MICROCONTACTOR	20540300	KNOB GUIDE OK TOUCHE GUIDE OK TASTE GUIDE OK TASTO GUIDE OK TECLA GUIDE OK	21050680
CJ075	CABLE WITH CONNECTOR 3 PINS 460MM CABLE AVEC CONNECTEUR 3 VOIES 460MM KABEL MIT VERBINDER 3 PINS 460MM CAVO CON CONNETTORE 3 SPINOTTI 460MM CABLE CON CONECTOR 3 PUNTOS 460MM	25443770	SK101,102, 103,104	MICROSWITCH MICRO CONTACTEUR MIKROSCHALTER MICROINTERRUTTORE MICROCONTACTOR	30011100	TVM502A OPTICAL PLAYER TVM502A LECTEUR OPTIQUE TVM502A CD-LAUFWERK TVM502A ASSIEME OTTICA TVM502A MECANISMO OPTICO	10669590
CJ076	CABLE WITH CONNECTOR 2 PINS 460MM CABLE AVEC CONNECTEUR 2 VOIES 460MM KABEL MIT VERBINDER 2 PINS 460MM CABLE CON CONNETTORE 2 SPINOTTI 460MM CABLE CON CONECTOR 2 PUNTOS 460MM	25443810	SP015	RELAY 12V RELAIS 12V RELAIS 12V RELE 12V RELE 12V	△ 90294100	FRONT PANEL TV FACADE TV FRONTPLATTE TV PANNELLO FRONTALE TV PANEL FRONTAL TV	25455470
CJ081,143	CABLE WITH CONNECTOR 2 PINS 580MM GREEN CABLE AVEC CONNECTEUR 2 VOIES 580MM VERT CABLE MIT VERBINDER 2 PINS 580MM GRUEN CAVO CON CONNECTOR 2 SPINOTTI 580MM VERD CABLE CON CONECTOR 2 PUNTOS 580MM VERDE	10327420	UA503	OPTICAL SOCKET PRISE OPTIQUE OPTICAL-BUCHSE PRESA OTTICA TOMA OPTICO	15293550	REAR PANEL DOS RUECKWAND PANNELLO POSTERIORE TAPA POSTERIOR	△ 25465780
CJ100	THT CABLE CABLE THT KABEL THT CAVO THT CABLE THT	△ 10664300	EQUIPMENT/PRESENTATION EQUIPEMENT/PRESENTATION AUSSTATTUNG/GEHAEUSE PARTI VARIE EQUIPO/PRESENTACION			JACK PANEL BE15TH TABLEAU DE PRISES BE15TH JACK FRONTPLATTE BE15TH QUADRO DI PRESA JACK BE15TH TABLERO DE TOMA JACK BE15TH	△ 25467140
CJ105	CABLE 460MM 20KV HT CABLE 460MM 20KV HT KABEL 460MM 20KV HT CAVO 460MM 20KV HT CABLE 460MM 20KV HT	△ 10369650				LOGO THOMSON LOGO THOMSON SCHRIFTZUG THOMSON MARCHIO THOMSON LOGOTIPO THOMSON	25376750
						CHASSIS SLIDE SECURING GLISSIERE FIXATION CHASSIS SCHIEBER BEFESTIGUNG CHASSIS SVIVOLO DI FISSAGGIO CHASSIS CORREDERA DE SUJECION CHASIS	25413960
						LOUDSPEAKER GRID BOOMER BE15TH GRILLE HAUT PARLEUR GRAVES BE15TH LAUTSPRECHER GITTER TIEFTOENER BE15TH GRIGLIA ALTOPARLANTE SUPERIOR BE15TH REJILLA ALTAVOZ GRAVES BE15TH	25465810
						8R OHM 12W LOUDSPEAKER 60X160MM 8R OHM 12W HAUT PARLEUR 60X160MM 8R OHM 12W LAUTSPRECHER 60X160MM 8R OHM 12W ALTOPARLANTE 60X160MM 8R OHM 12W ALTAVOZ 60X160MM	25481710
						8R OHM 20W LOUDSPEAKER 51X51MM 8R OHM 20W HAUT PARLEUR 51X51MM 8R OHM 20W LAUTSPRECHER 51X51MM 8R OHM 20W ALTOPARLANTE 51X51MM 8R OHM 20W ALTAVOZ 51X51MM	25461220
						4R OHM 30W LOUDSPEAKER 130MM 4R OHM 30W HAUT PARLEUR 130MM 4R OHM 30W LAUTSPRECHER 130MM 4R OHM 30W ALTOPARLANTE 130MM 4R OHM 30W ALTAVOZ 130MM	10517870
						ON/OFF BUTTON S101TH TOUCHE MARCHE/ARRET S101TH EIN-AUS TASTE S101TH TASTA ACCESSO/SPENTO S101TH TECLA MARCHA/PARADA S101TH	25462910
						FRONT PANEL DVD FACADE DVD FRONTPLATTE DVD PANNELLO FRONTALE DVD PANEL FRONTAL DVD	21050580
						COVER TRAY CD CACHE TIROIR CD ABDECKUNG SCHUBLADE CD COPERCHIO CASSETTO CD CUBIERTA CORREDERA CD	21050770
						LABEL (COVER TRAY CD) ETIQUETTE (CACHE TIROIR CD) ETIKETT (ABDECKUNG SCHUBLADE CD) ETICHETTA (COPERCHIO CASSETTO CD) ROTULO (CUBIERTA CORREDERA CD)	2110522A
						BUTTON STRIP DVD CONTROL BARRETTE DE TOUCHES DVD CONTROL TASTENLEISTE DVD CONTROL PIATTINA TASTI DVD CONTROL PLACA DE TECLAS DVD CONTROL	21050610

POWER SUPPLY LEAD CORDON D'ALIMENTATION NETZKABEL CAVO DI ALIMENTAZIONE CABLE DE ALIMENTACION	△ 25420360		
CORD STOPPER ATTACHE CORDON SECTEUR ZUGENTLASTUNG BRIDA CORDONE DI ALIMENTAZIONE SUJECION CABLE DE ALIMENTACION	25071420		ICC20 SERVICE MANUAL EUROPE 35118540 ICC20 DOC TECHNIQUE EUROPE ICC20 TECHNISCHE DOKUMENTATION EUROPE ICC20 DOCUMENTAZIONE TECNICA EUROPE ICC20 DOCUMENTACION TECNICA EUROPE
W76EJY011X121 CATHODE RAY TUBE W76EJY011X121 TUBE CATHODIQUE W76EJY011X121 FARBBILDROEHRE W76EJY011X121 TUBO CATODICO W76EJY011X121 T.R.C	△ 10670260		DVD17/20 SERVICE MANUAL 35127160 DVD17/20 DOC TECHNIQUE DVD17/20 TECHNISCHE DOKUMENTATION DVD17/20 DOCUMENTAZIONE TECNICA DVD17/20 DOCUMENTACION TECNICA
DOUBLE DEGAUSSING COIL BOBINE DE DEMAGNETISATION DOUBLE DOPPE ENTMAGNETISIERUNGSSPULE BOBINA DI SMAGNETIZZAZIONE DOPPIA BOBINA DE DESIMANTACION DOBLE	△ 10669680		ICC20 TV/DVD SERVICE MANUAL SUPPLEM. 35130200 ICC20 TV/DVD DOC TECHNIQUE ADDITIF ICC20 TV/DVD TECHNISCHE DOKUMENT. ZUSATZ ICC20 TV/DVD DOCUMENTAZIONE ADDITIVO ICC20 TV/DVD DOCUMENTACION ADICCIONAL
EFC COIL BOBINE EFC EFC-SPULE BOBINA EFC BOBINA EFC	10542150		32WT45ES PARTS LIST 35130210 32WT45ES LISTE PIECES DETACHEES 32WT45ES ERSATZTEILLISTE 32WT45ES LISTA PARTI DI RICAMBIO 32WT45ES LISTA PIEZAS DE REPUESTO
RCV400 REMOTE CONTROL RCV400 TELECOMMANDE RCV400 FERNBEDIENUNG RCV400 TELECOMANDO RCV400 TELEMANDO	21074280		32WT45ES UM NL/DK/S/RU/CS/PL/H/SK 25473580 32WT45ES NU NL/DK/S/RU/CS/PL/H/SK 32WT45ES BA NL/DK/S/RU/CS/PL/H/SK 32WT45ES IU NL/DK/S/RU/CS/PL/H/SK 32WT45ES IU NL/DK/S/RU/CS/PL/H/SK
FOLDING BOX EMBALLAGE CARTON KARTON IMBALLAGGIO CARTONE EMBALAJE CARTON	25417300		32WT45ES UM F/D/I/GB/GR/E/P 25466870 32WT45ES NU F/D/I/GB/GR/E/P 32WT45ES BA F/D/I/GB/GR/E/P 32WT45ES IU F/D/I/GB/GR/E/P 32WT45ES IU F/D/I/GB/GR/E/P
FITTING DOWNER CALE INFERIEURE POLSTER UNTEN DISTANZIATORE INFERIORE CALZO INFERIOR	25451020		
FITTING UPPER CALE SUPERIEURE POLSTER OBEN DISTANZIATORE SUPERIORE CALZO SUPERIOR	25451030		

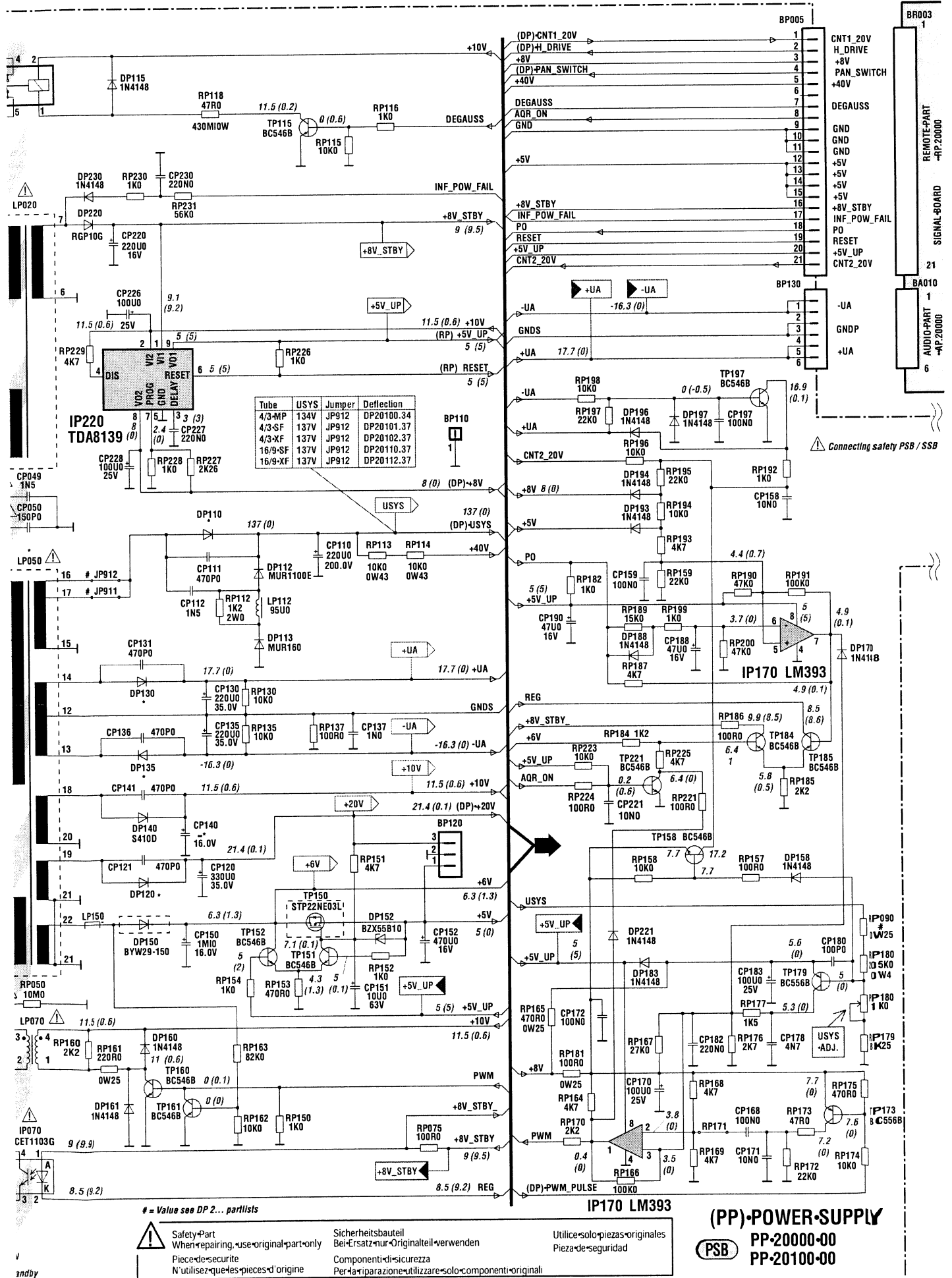
32WT45ES

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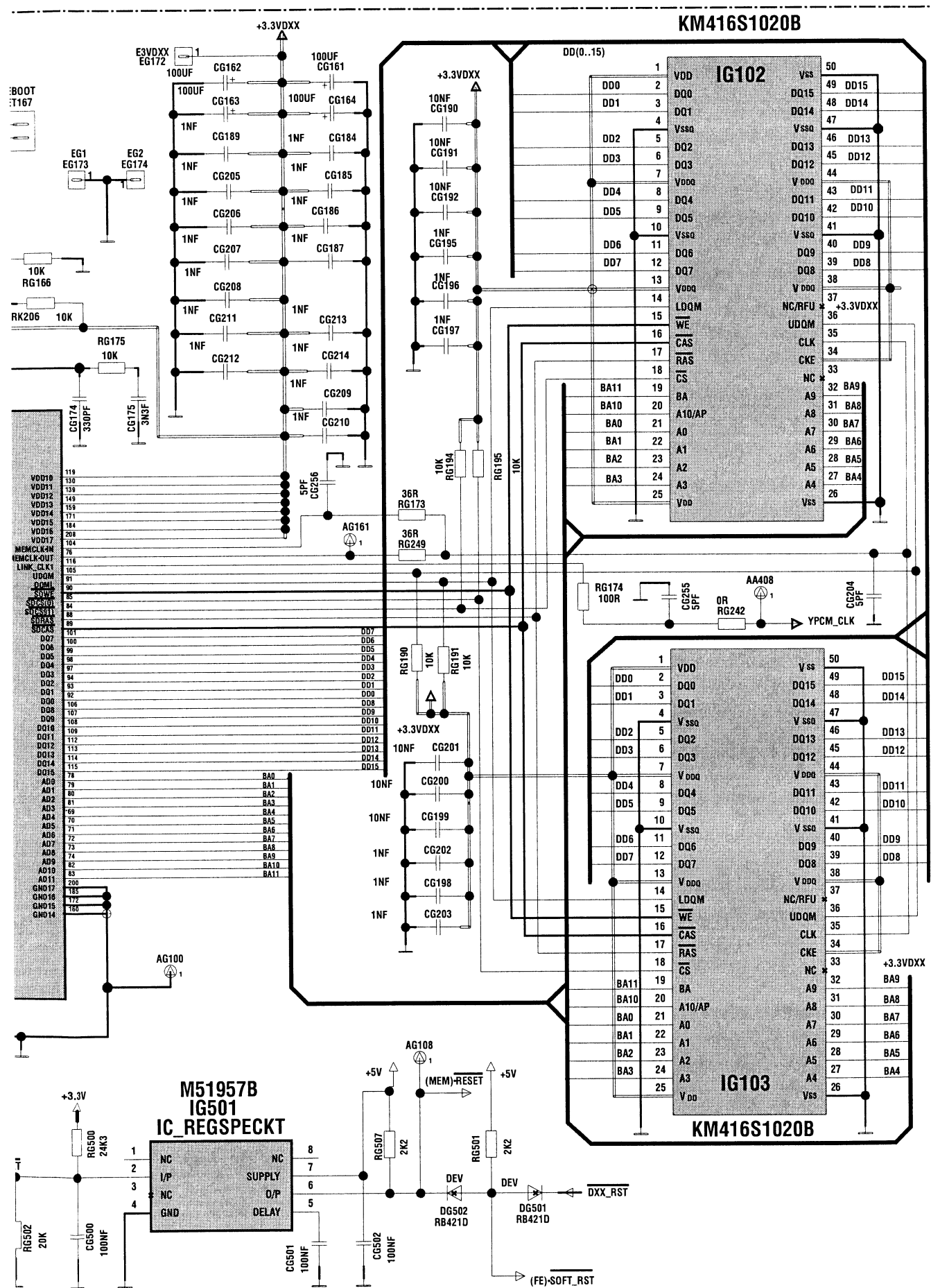
POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE - NETZTEIL- UND ABLENKPLA POWER SUPPLY PART - PARTIE ALIMENTATION - NETZTEIL - ALIMENTAZIONE - ALIMENTACIÓ



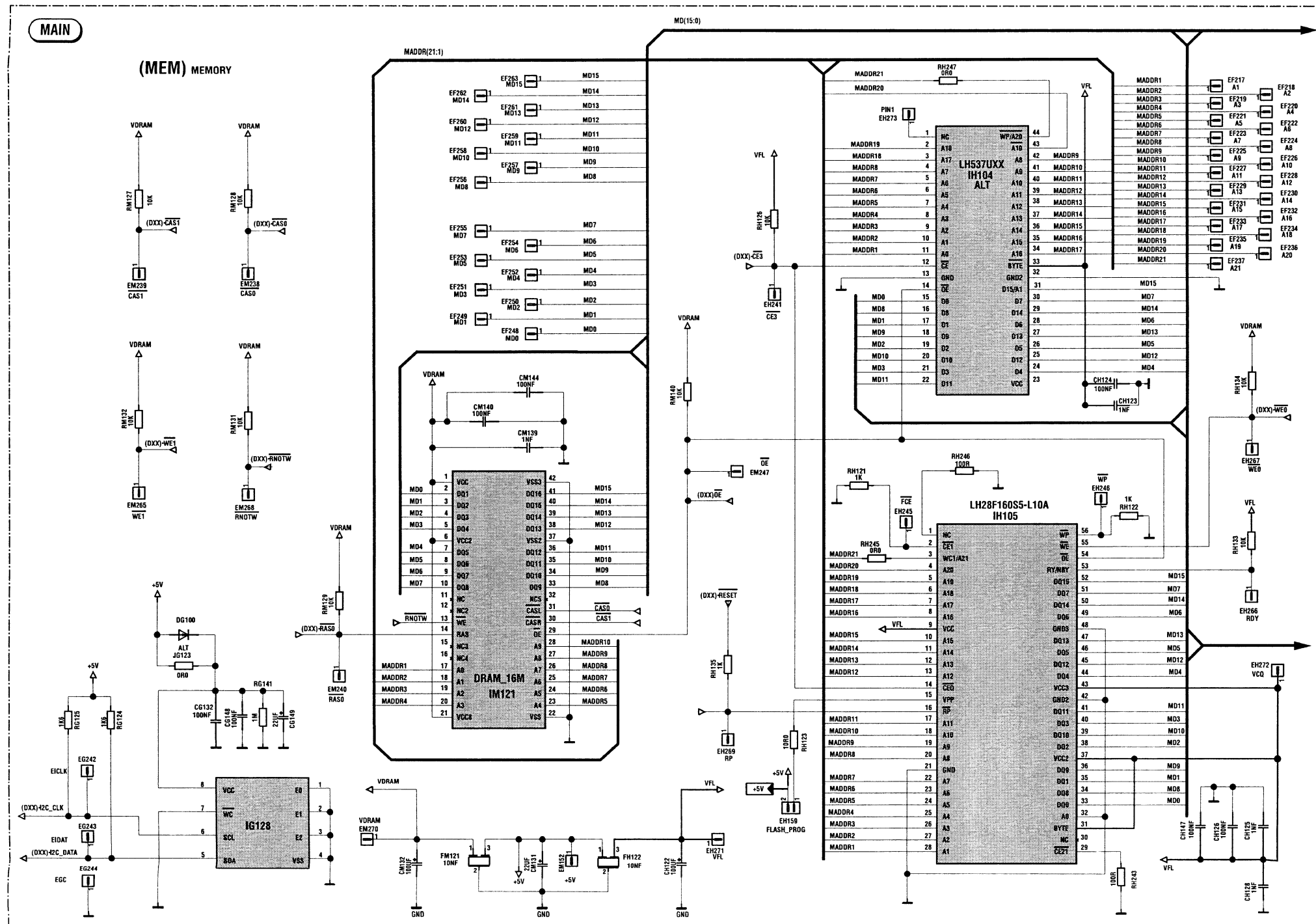
ENKPLATINE - PIASTRA DEFLESSIONE / ALIMENTAZIONE - PLACA ALIMENTACIÓN / BARRIDOS ENTENCIÓN



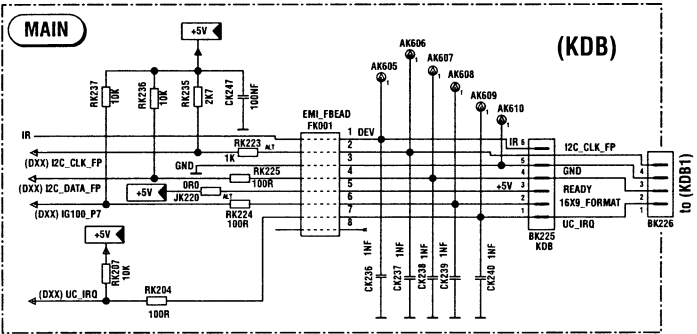
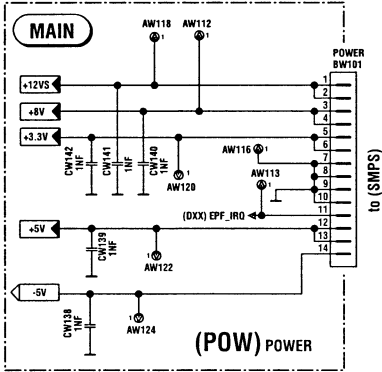
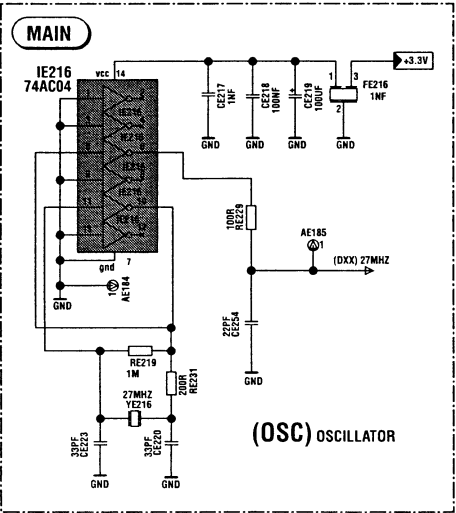
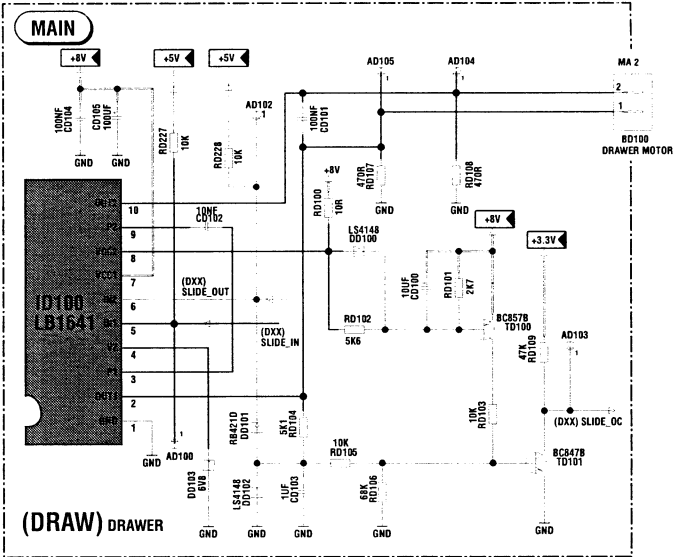
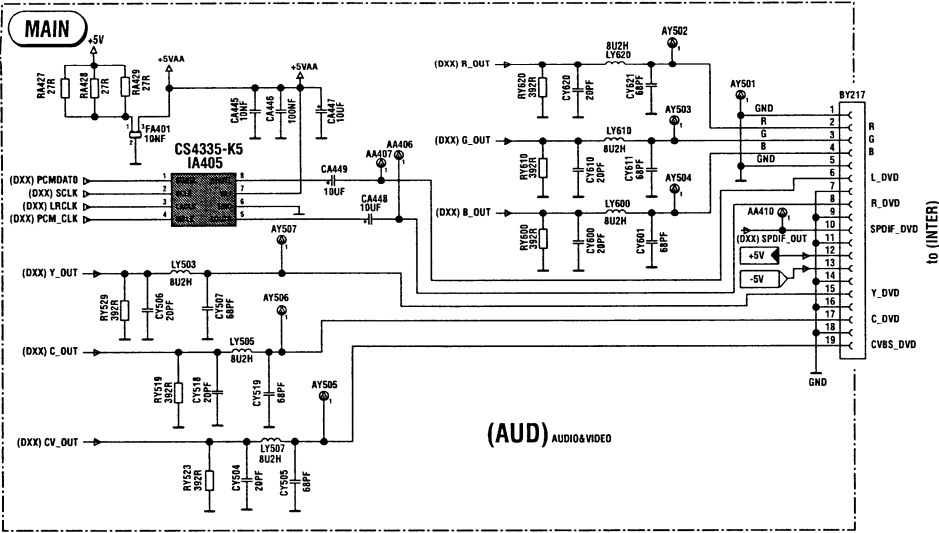
..ATINE..SCHEMA DELLA PIASTRA PRINCIPALE..ESQUEMA DE LA PLATINA PRINCIPAL..



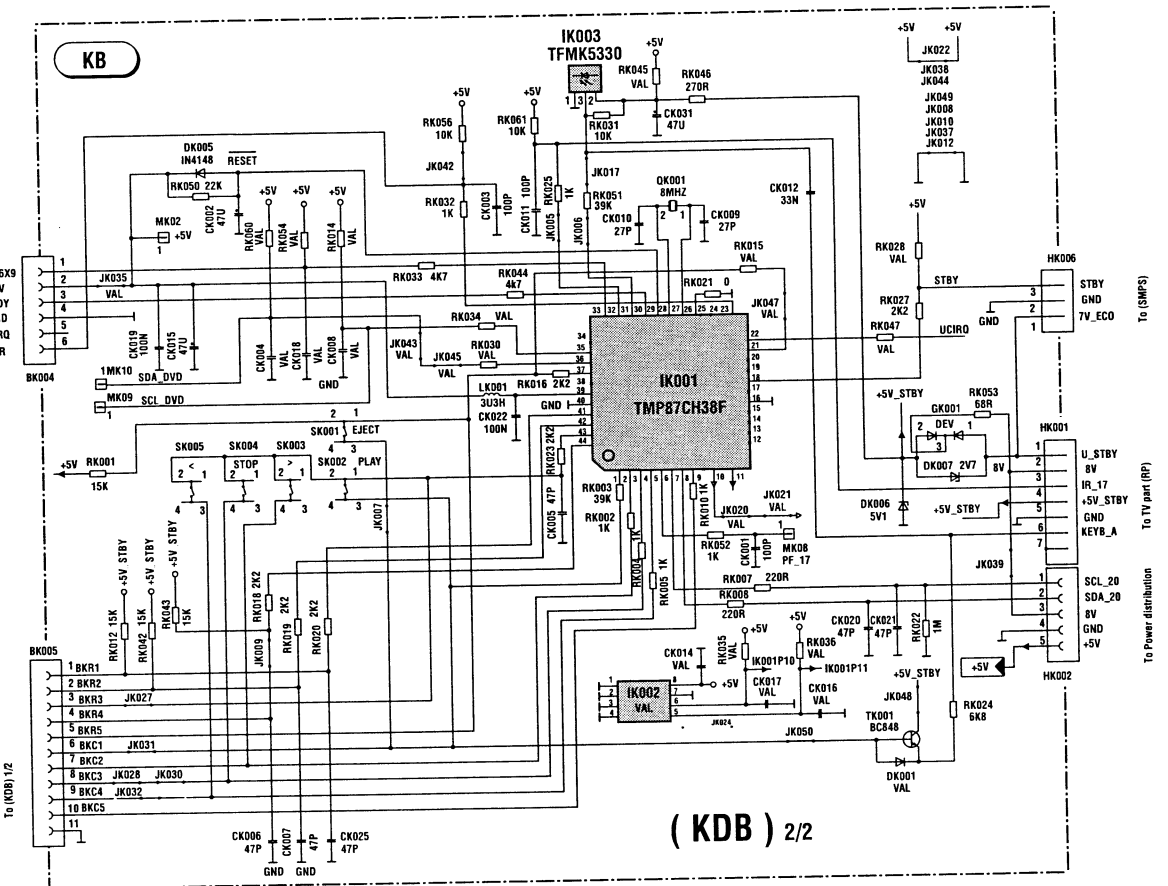
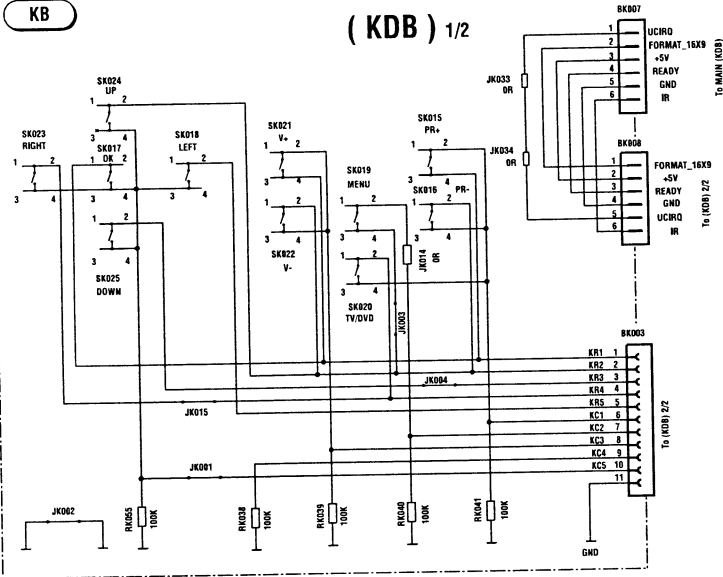
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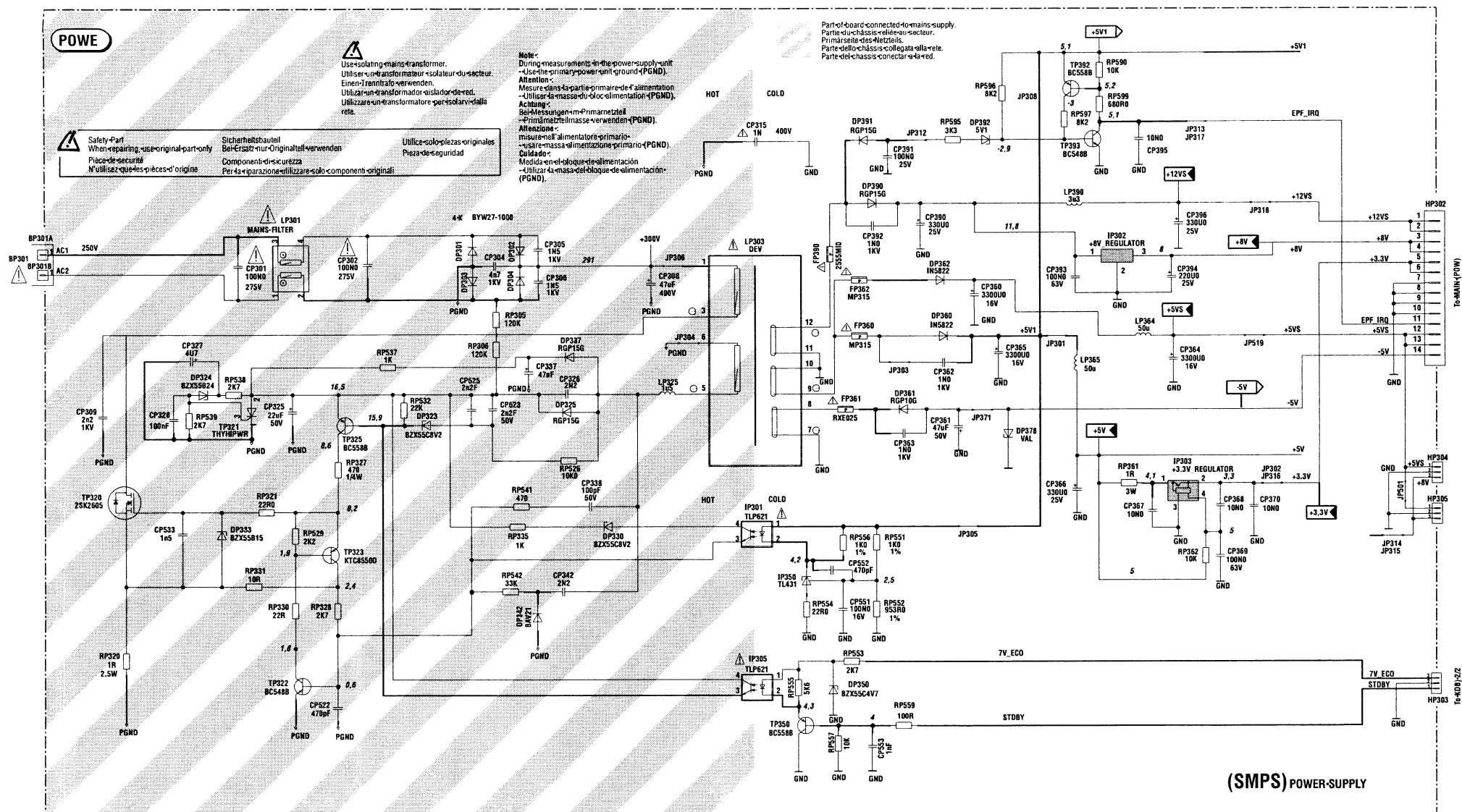
MAIN SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE PRINCIPALE - SCHALTBILD HAUPTPLATINE - SCHEMA DELLA PIASTRA PRINCIPALE- ESQUEMA DE LA PLATINA PRINCIPAL



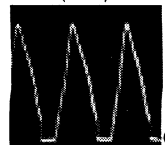
KEYBOARD SCHEMATIC DIAGRAM - SCHEMA DES CIRCUITS



POWER SUPPLY SCHEMATIC DIAGRAM SCHEMA DES CIRCUITS D'ALIMENTATIONS - SCHALTBILD NETZTEIL - SCHEMA DEI CIRCUITI DI ALIMENTAZIONE - ESQUEMA DE LOS CIRCUITOS DE ALIMENTACIÓN

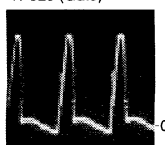


TP320 (Drain)



T=15μs 680Vpp

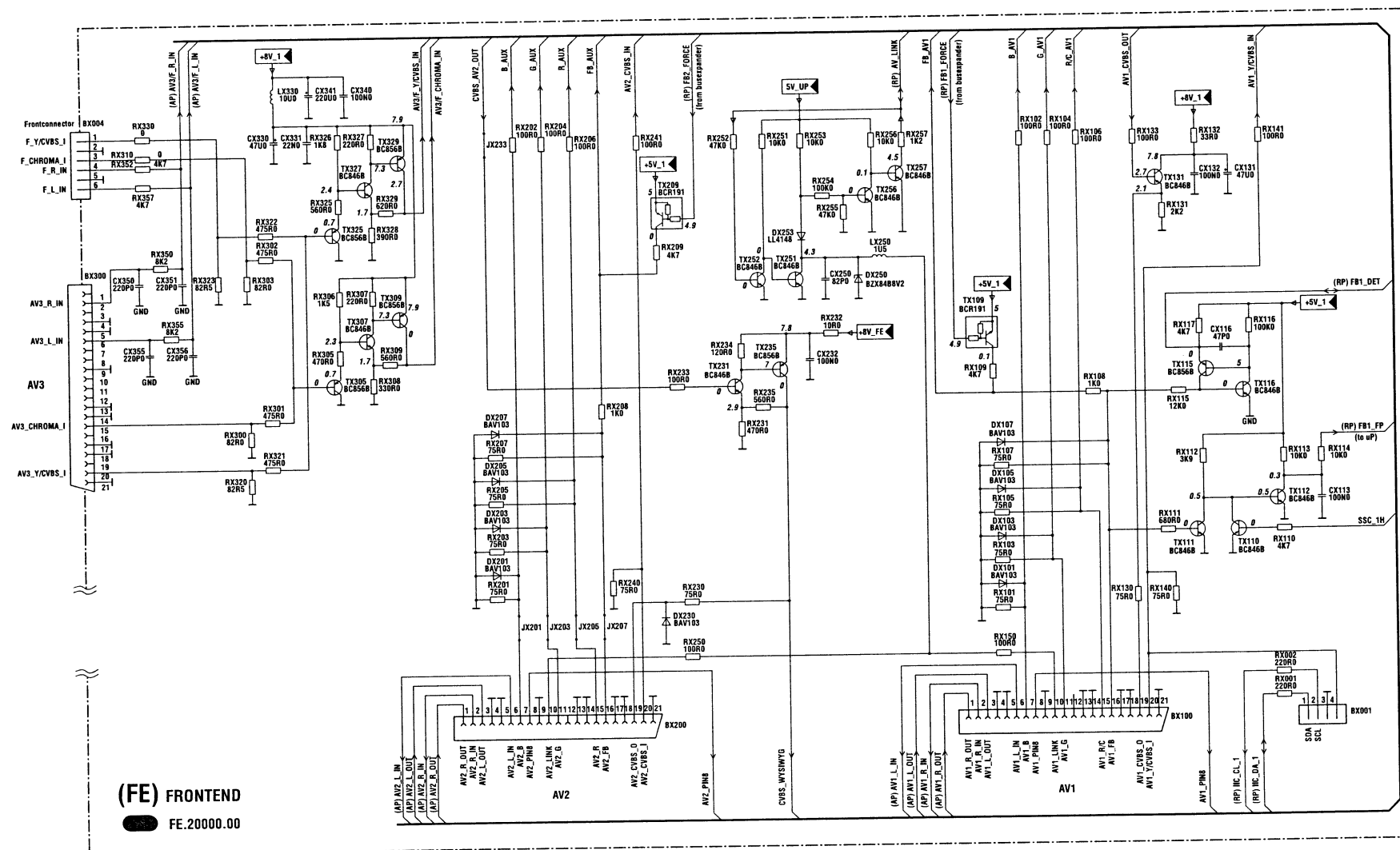
TP320 (Gate)

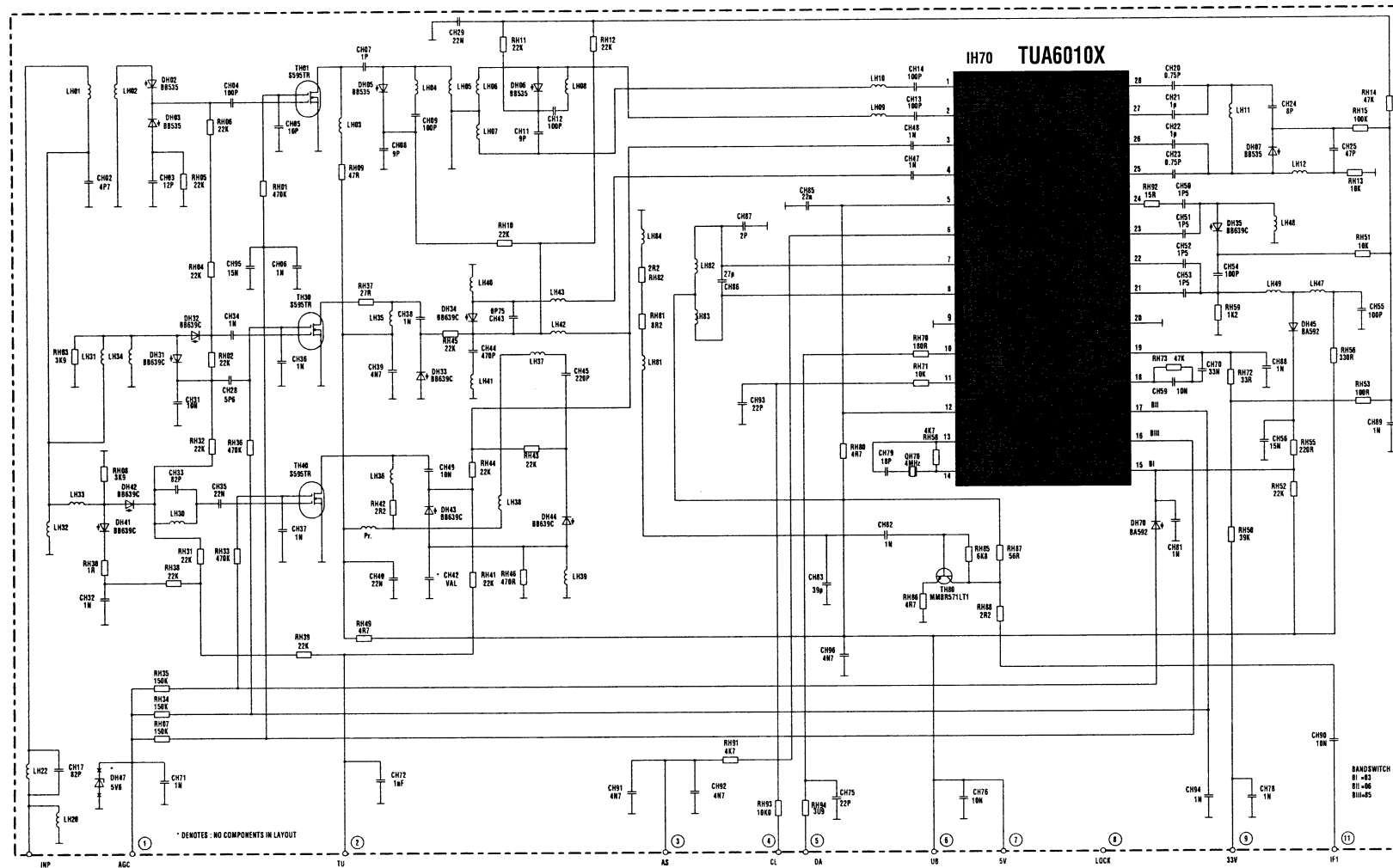


T=15μs 12Vpp

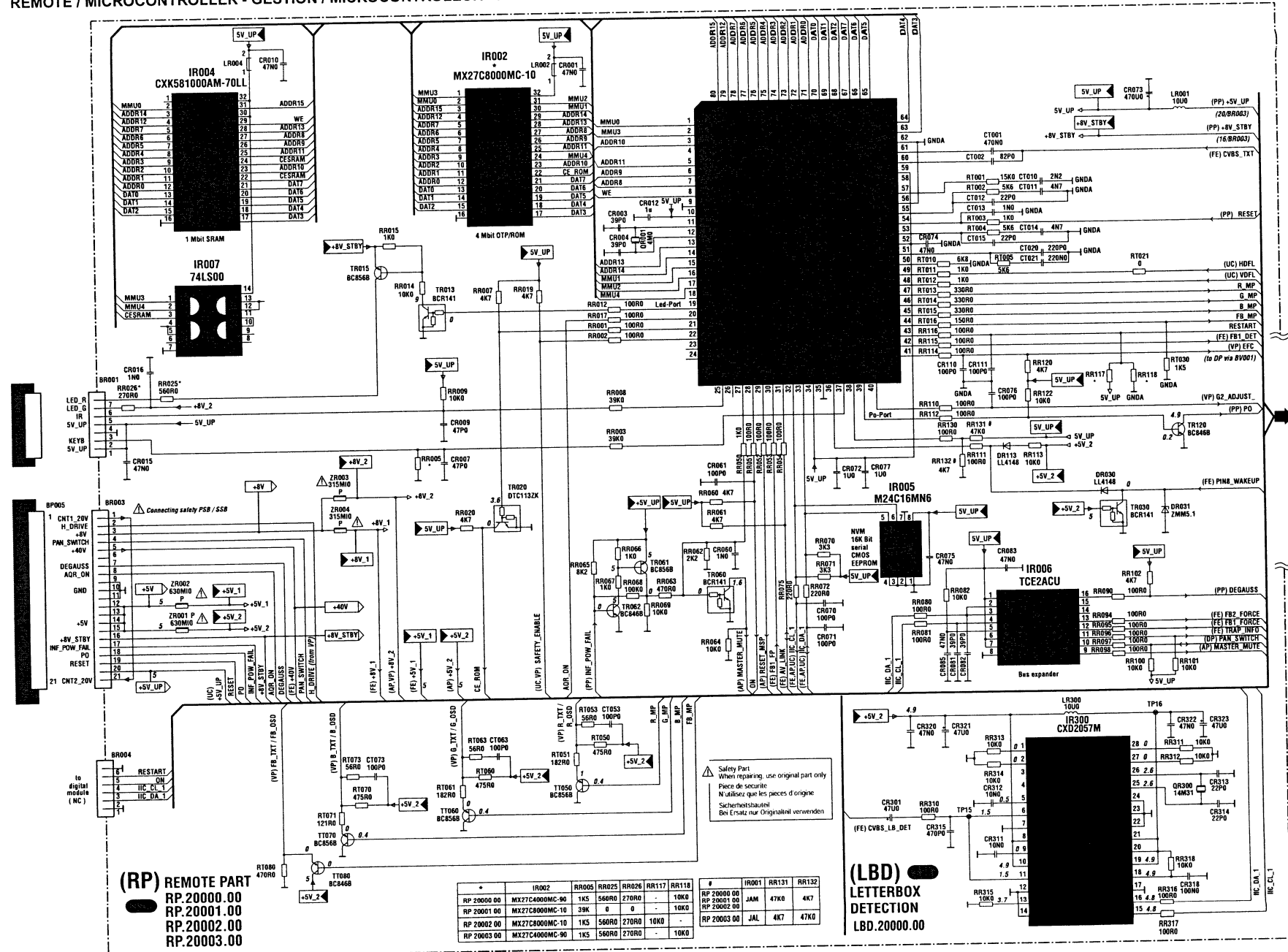
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FRONTEND PART (2) - EINGANGSSTUFEN (2) - PRESE FRONTALI (2) - FRONT END PART (2)

SCART INTERFACE - INTERFACE PERITELEVISION - SCART INTERFACE - PRESA PERITEL - EUROCONECTOR

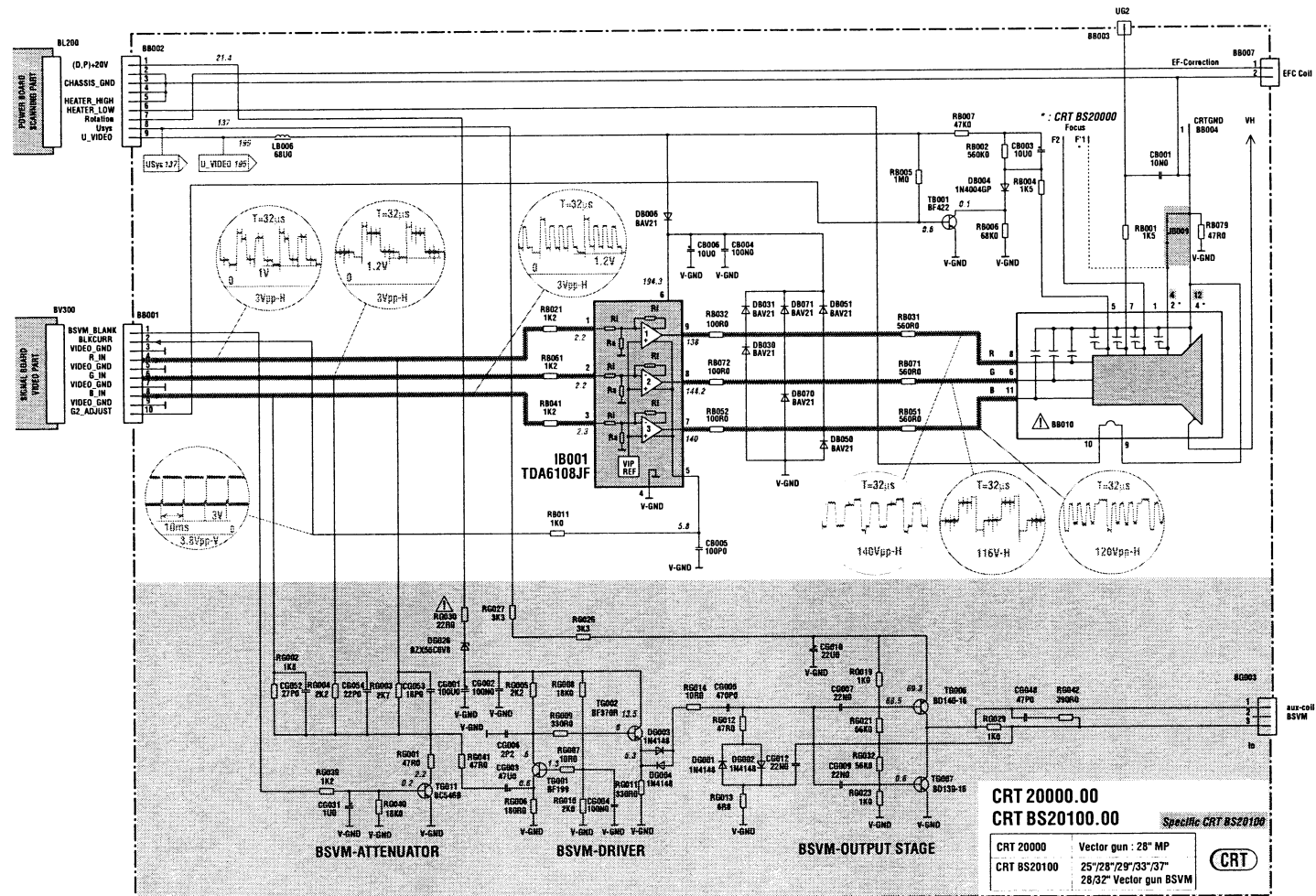




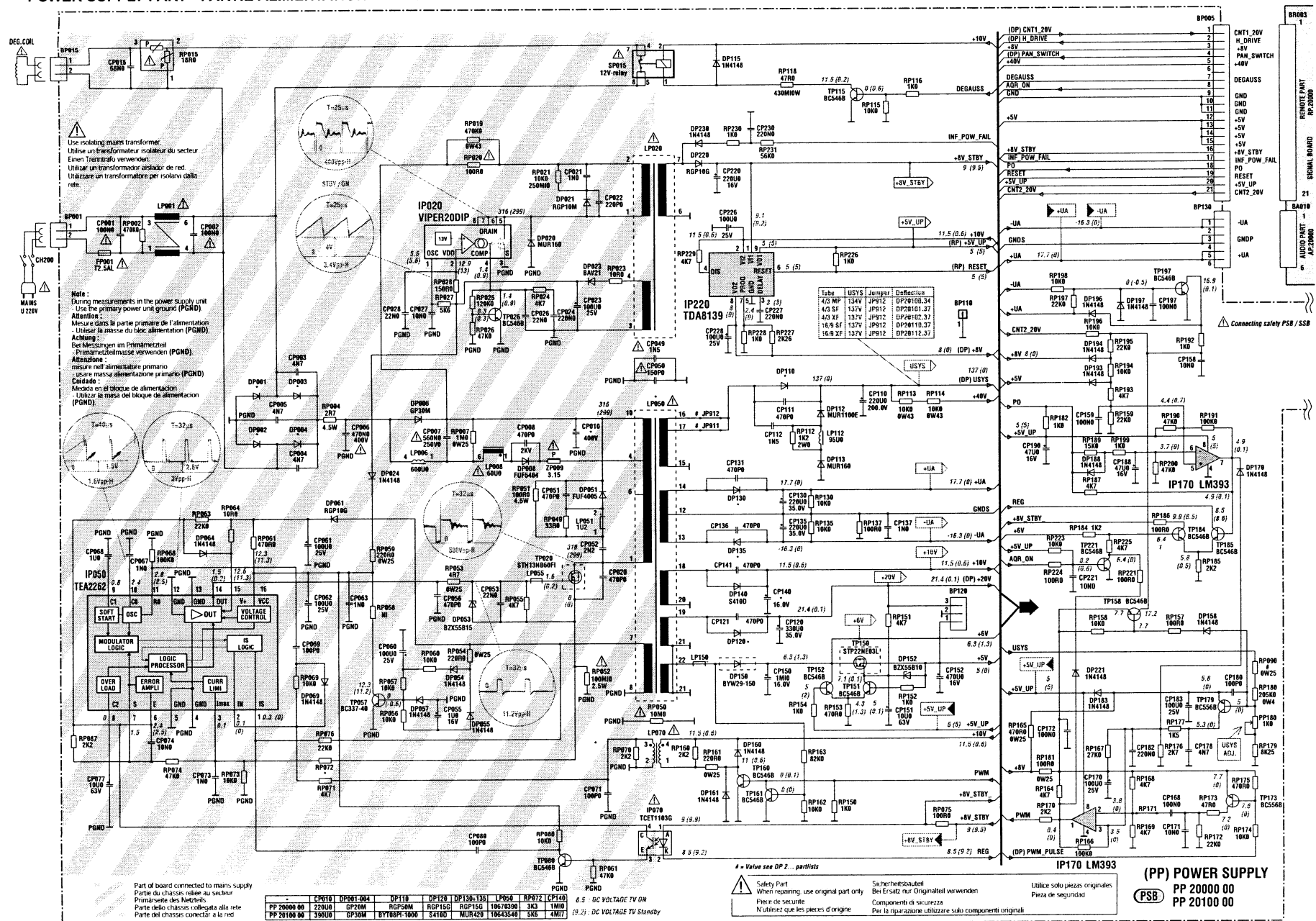
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 REMOTE / MICROCONTROLLER - GESTION / MICROCONTROLEUR - FERNBEDIENUNGS- UND MICROCONTROLLERSTUFEN - MICROPROCESSORE - REMOTO / MICROCONTROLADOR



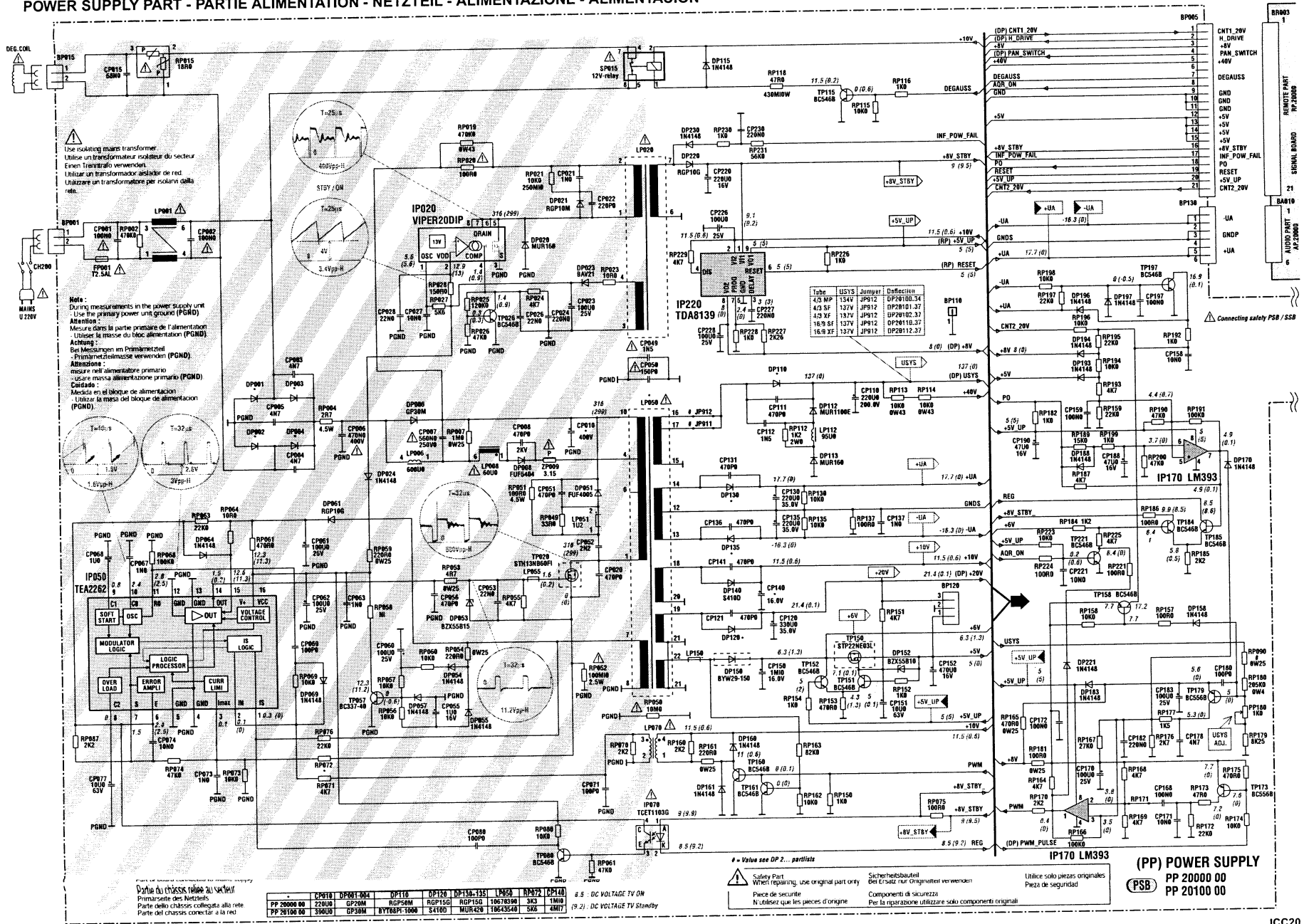
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
 CRT 20000.00 - CRT BS20100.00



POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE - NETZTEIL- UND ABLENKPLATINE - PIASTRA DEFLESSIONE / ALIMENTAZIONE - PLACA ALIMENTACIÓN / BARRIDOS
POWER SUPPLY PART - PARTIE ALIMENTATION - NETZTEIL - ALIMENTAZIONE - ALIMENTACIÓN



POWER / SCAN BOARD - PLATINE ALIMENTATION / BALAYAGE - NETZTEIL- UND ABLENKPLATINE - PIASTRA DEFLESSIONE / ALIMENTAZIONE - PLACA ALIMENTACIÓN / BARRIDOS
 POWER SUPPLY PART - PARTIE ALIMENTATION - NETZTEIL - ALIMENTAZIONE - ALIMENTACIÓN



(DP) DEFLECTION

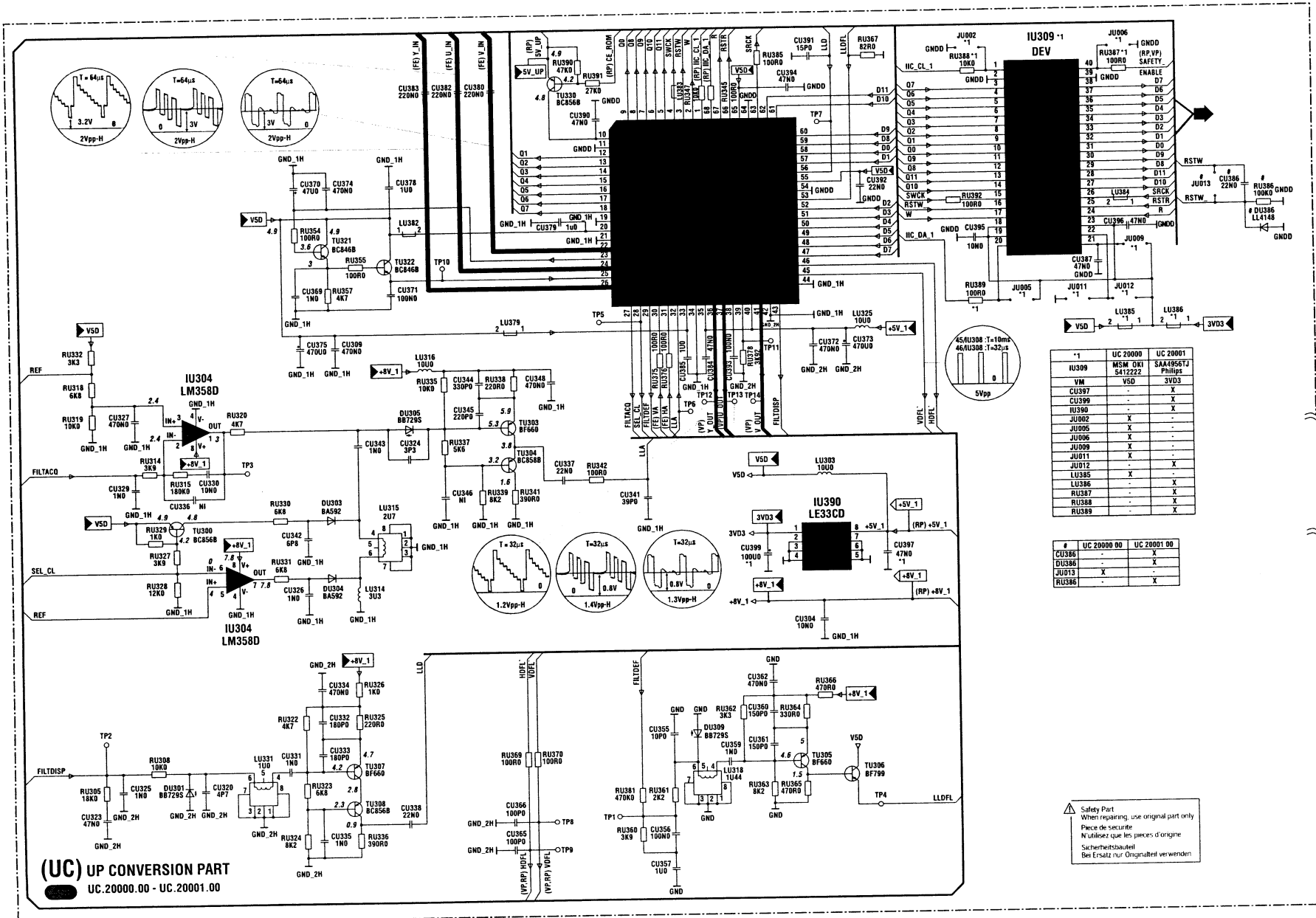
(PSB) DP 20100.34 - DP 20101.37
DP 20102.35 - DP 20110.37
DP 20112.35

Table 1: Component Values for DP Models

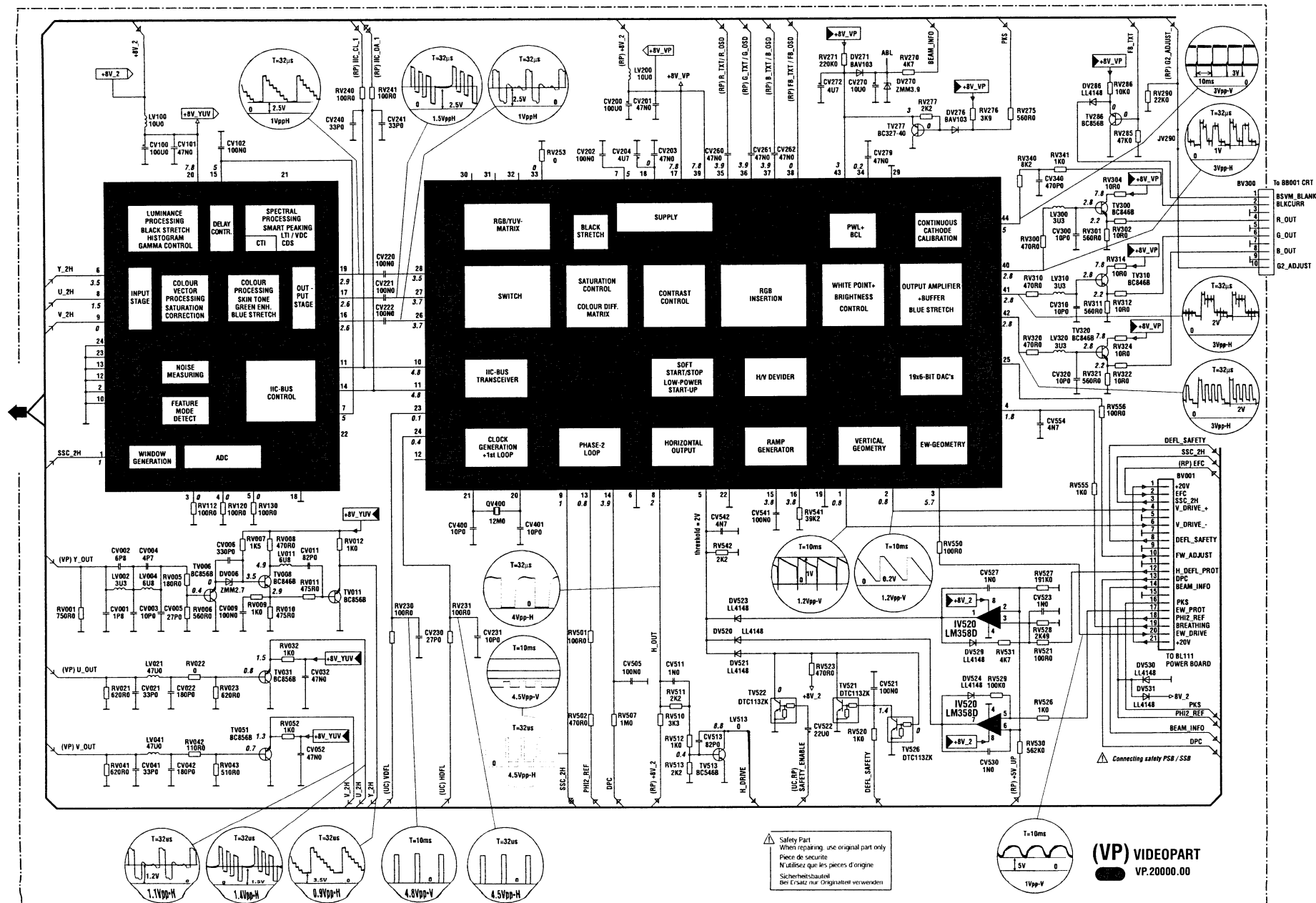
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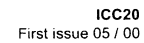
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UPCONVERTER PART - PARTIE CONVERSION - UPCONVERTER STUFEN - CIRCUITO UPCONVERTER - SUPRACONVERTOR

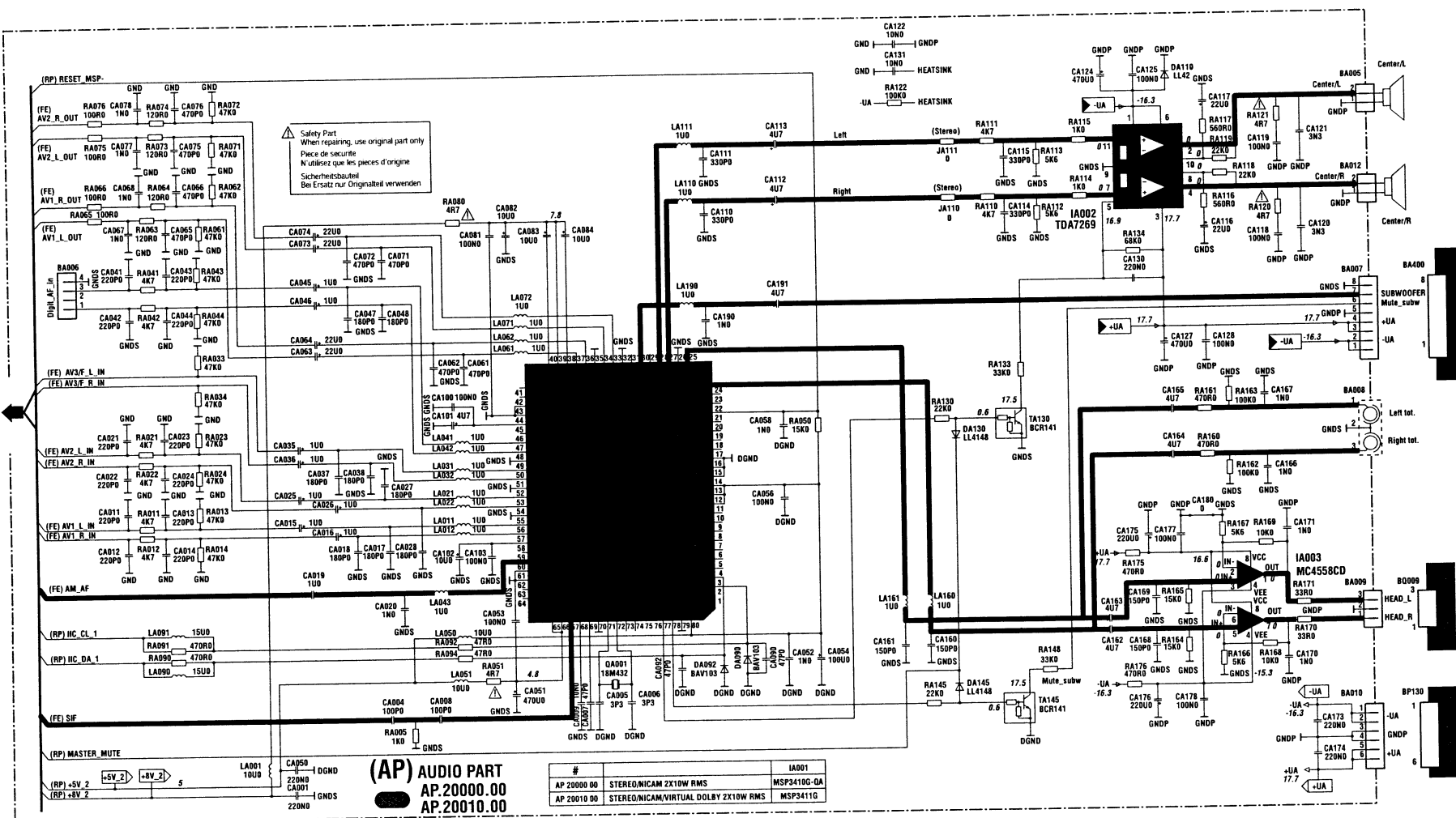


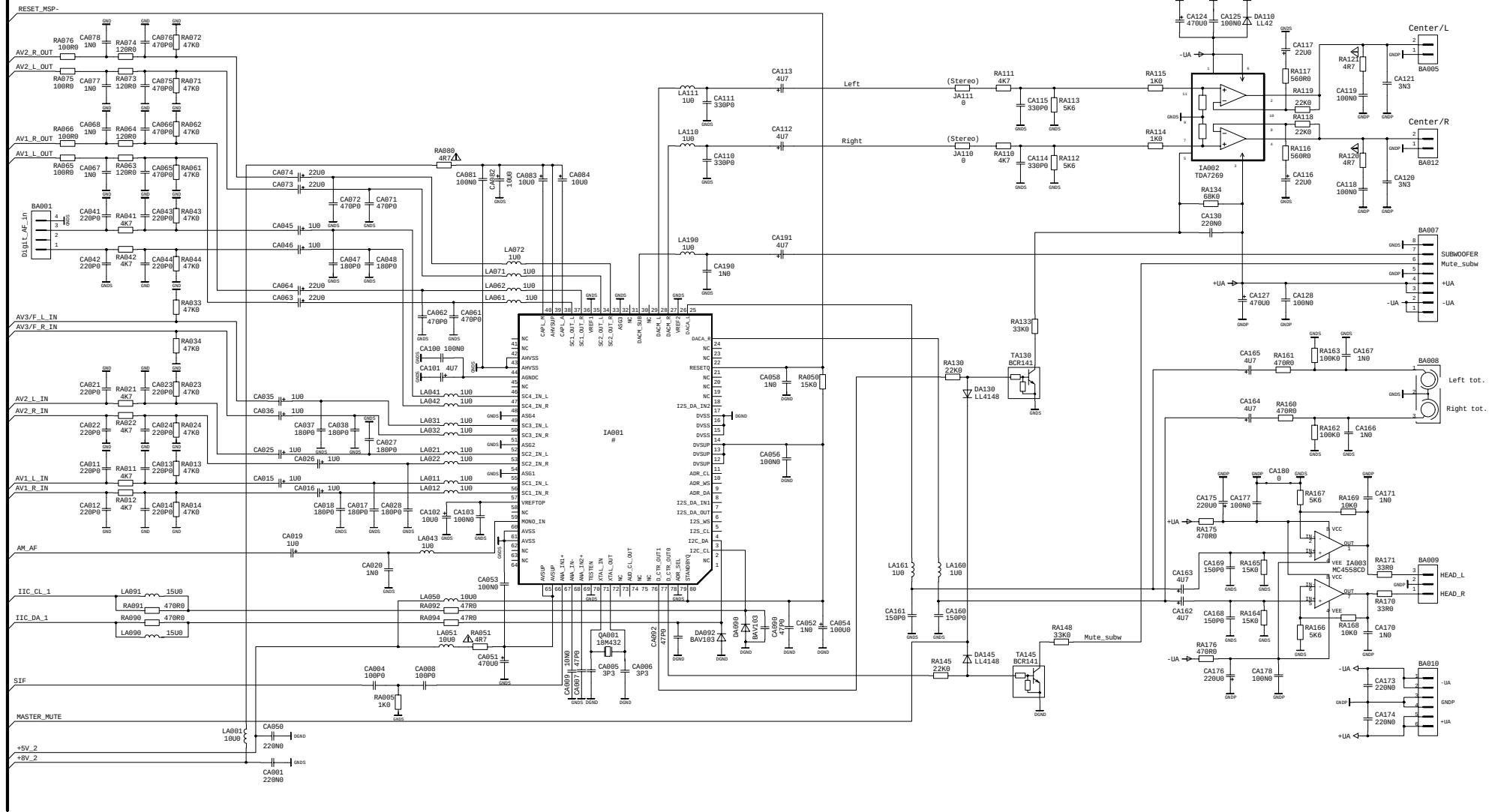
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VIDEO PART - PARTIE VIDEO - VIDEO-SIGNALVERARBEITUNG - ELABORAZIONE VIDEO - TRATAMIENTO VIDEO



RF/IF / VIDEO SIGNAL PROCESSING - HF/IF / TRAITEMENT LUMINANCE CHROMINANCE - HF-, ZF- UND VIDEO-SIGNALVERARBEITUNG - RF/IF / ELABORAZIONE SEGNALE VIDEO - RF/IF / TRATAMIENTO SEÑAL VIDEO







#	IA001
AP 20000 00	MSP3410G-QA
AP 20010 00	MSP3451G

 Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

 Safety Part
When repairing, use original part only

 Piece de securite
N'utilisez que les pieces d'origine

THOMSON MULTIMEDIA
tv product development europe
P.O.Box 1387 D-78083 Villingen Germany
Tel (49) 7721/85 03 Fax (49) 7721/8522
DEVELOPMENT DEPT: CTA_PEDUZZI

E	28.03.99	J.David	C36930	DRAWN ON: 10.03.99
D	01.12.99	RIEDM.	CORRECTION	
C	19.11.99	RIEDM.	C28638/29960 950/38228/278	BY: RIEDM. CHECKED
B	22.08.99	RIEDM.	NK. ADDED 08L2-CORR.	
A	11.06.99	RIEDM.	08L1-CORR.	ON: BY:

DRAWN

DN: 10.03.99

BY: RIEDM.

CHECKED

BY: _____

DESIGNATION

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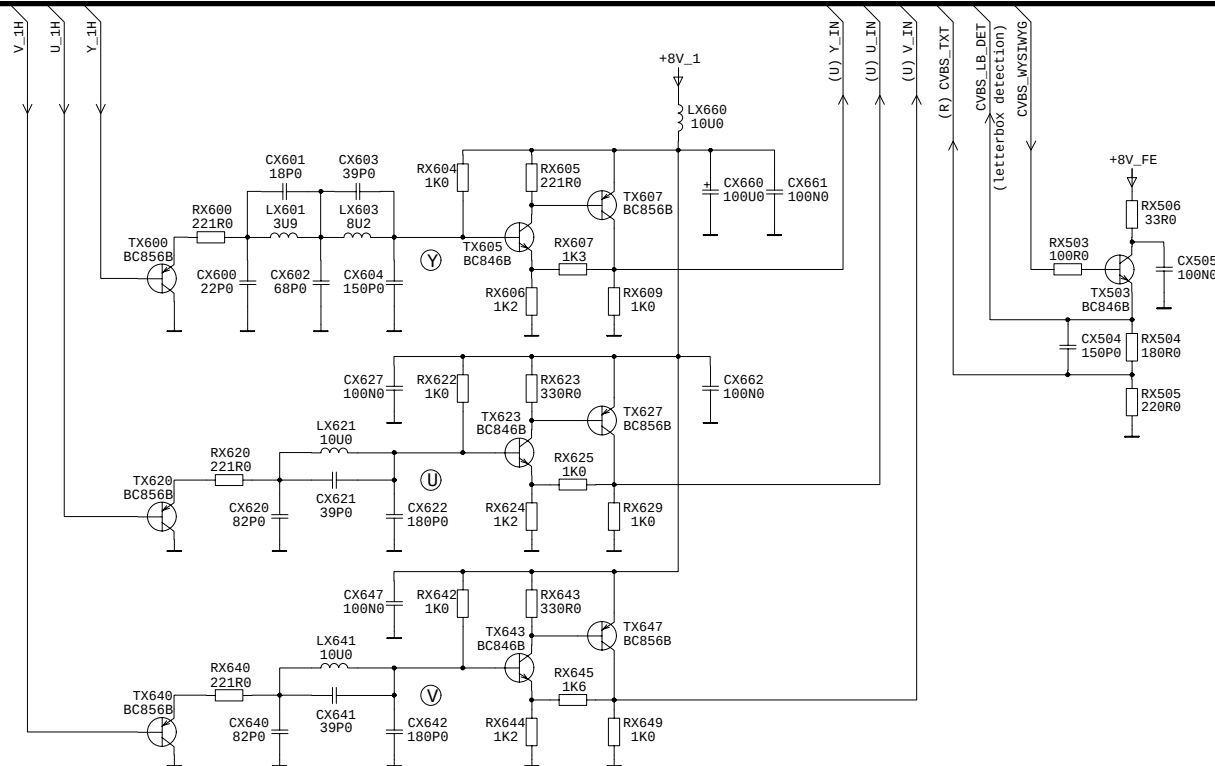
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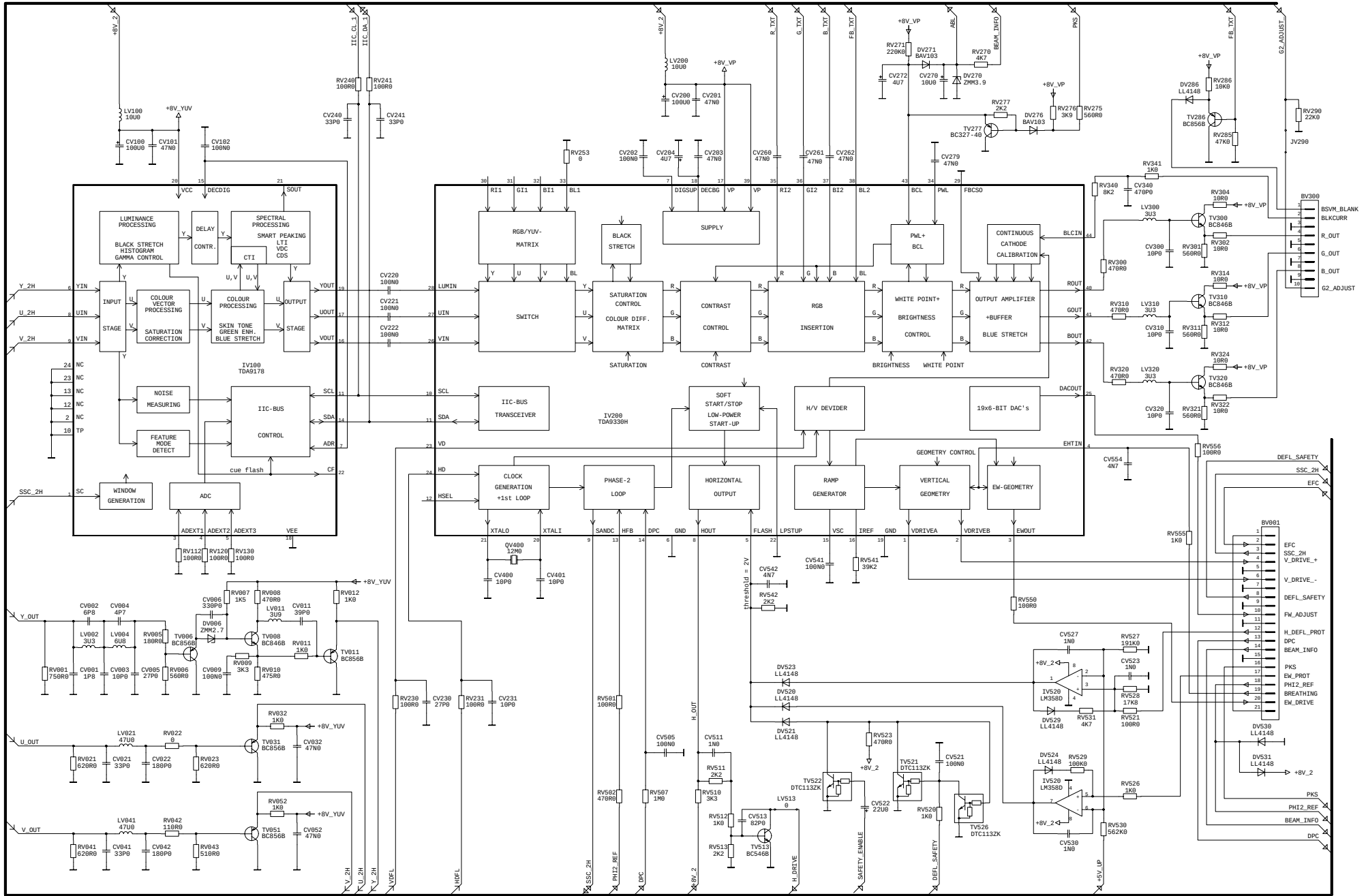
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DEVELOPMENT DEPT: CTV_MIKA

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| H | 04.04.00 | J.David | C34650 |
| G | 31.03.00 | J.David | C37700 |
| F | 27.03.00 | J.David | C37100 |
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BY: RIEDM.
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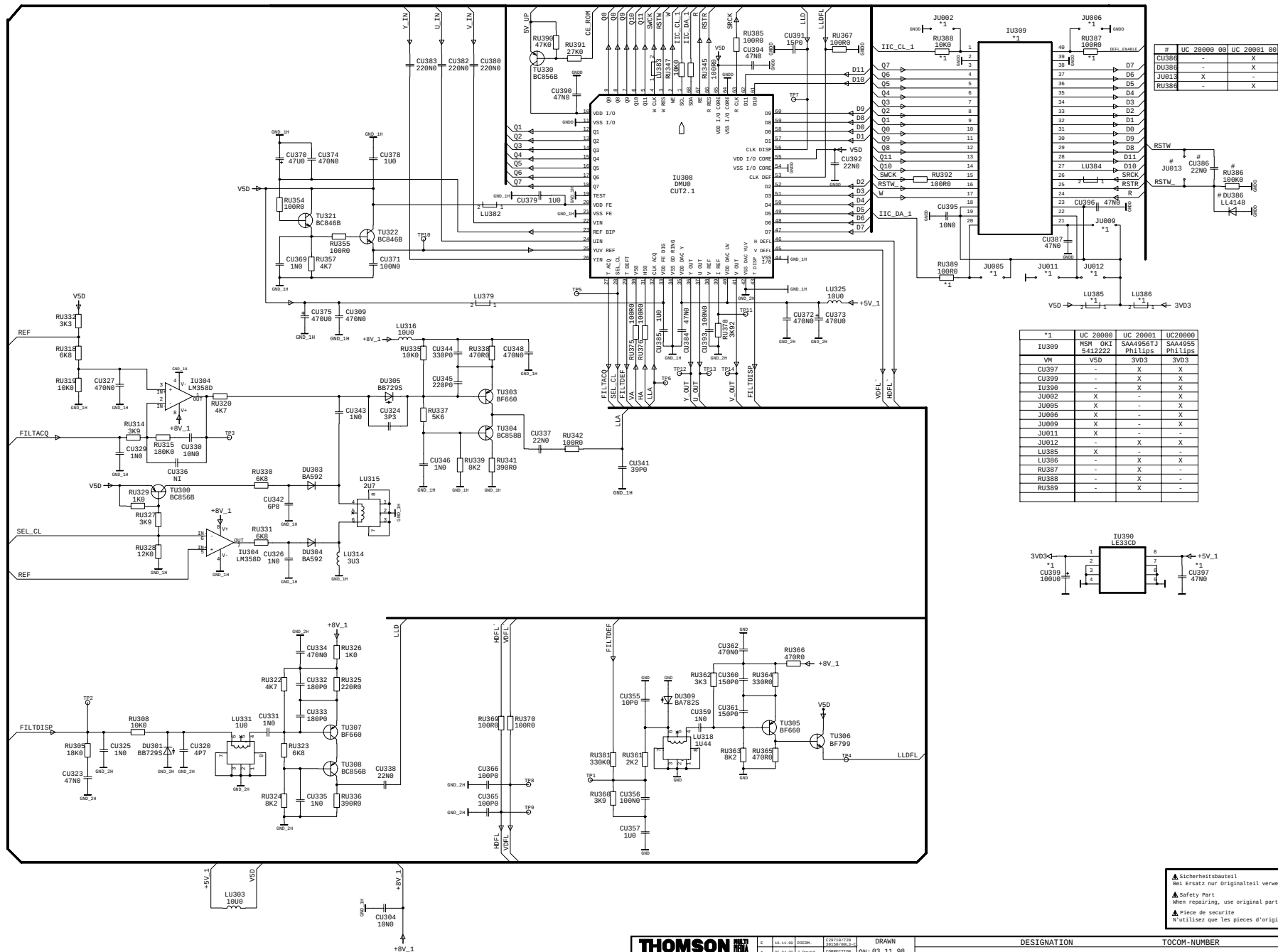
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DESIGNATION: VP.20000.00
TOCOM-NUMBER: 10626010
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PAGE: 1
OF: 1



⚠ Sicherheitsbauteil
Nicht Ersatz nur Originalteil verwenden
⚠ Safety Part
When repairing, use original part only
⚠ Piece de securite
N'utilisez que les pieces d'origine

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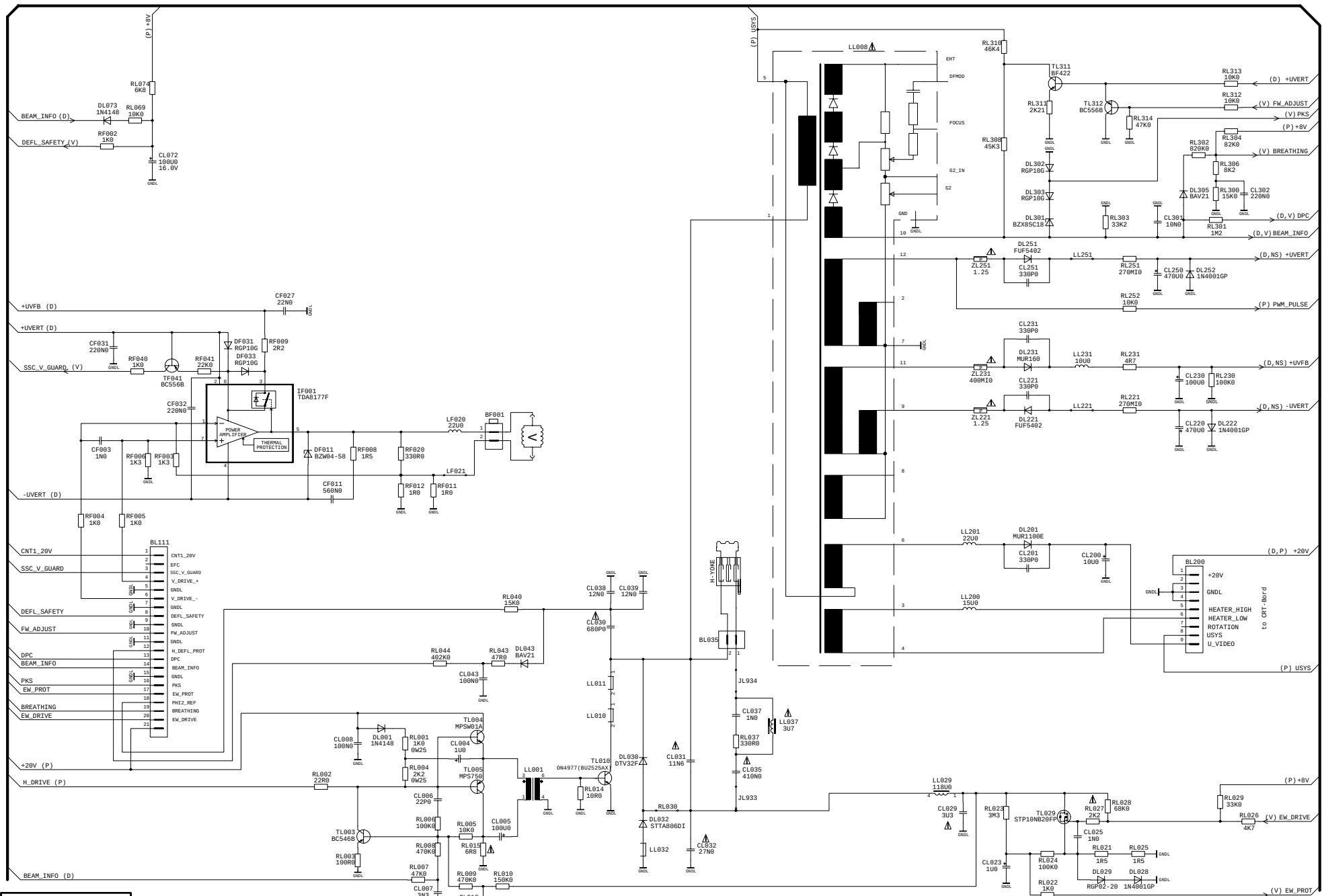
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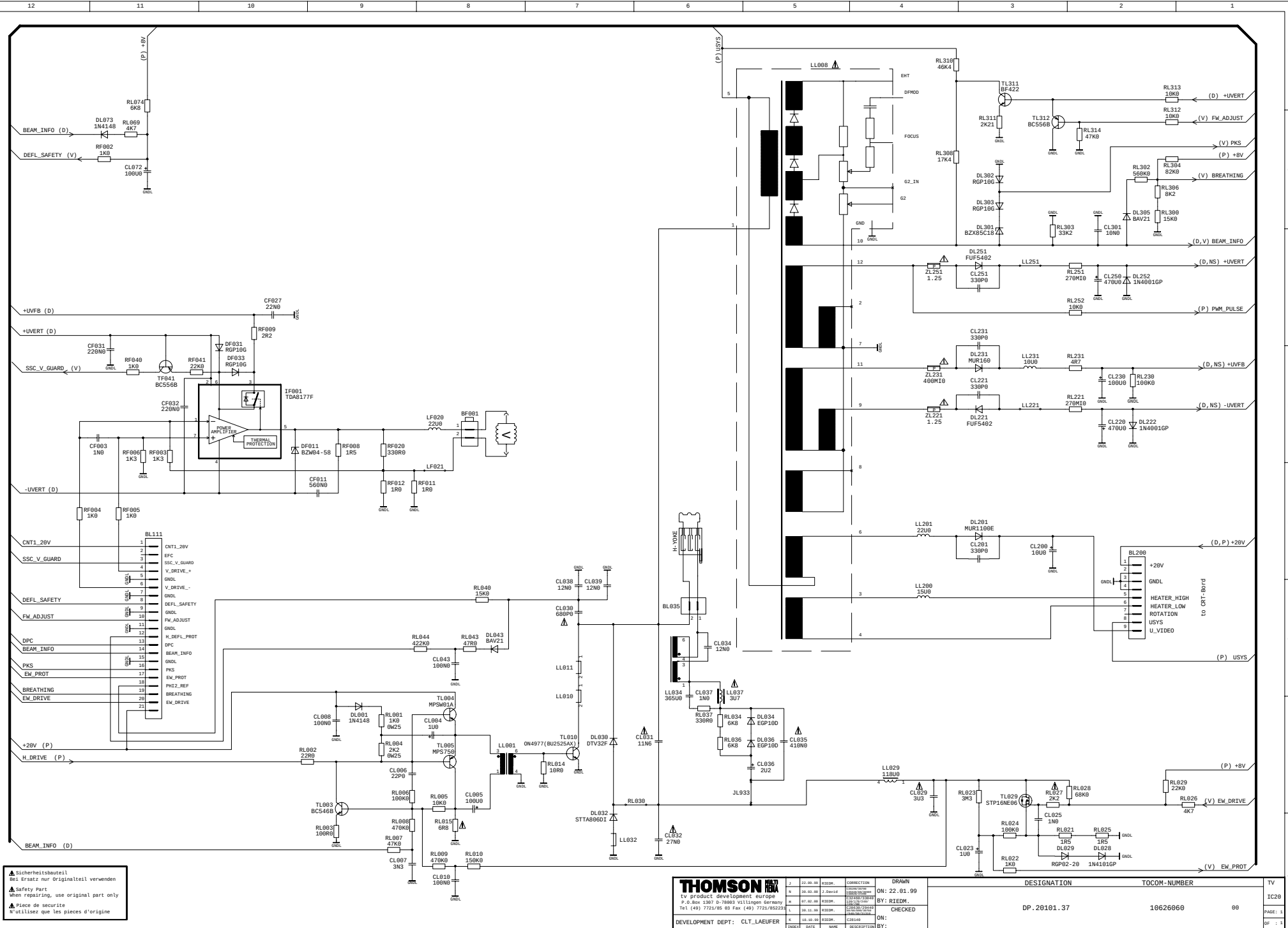


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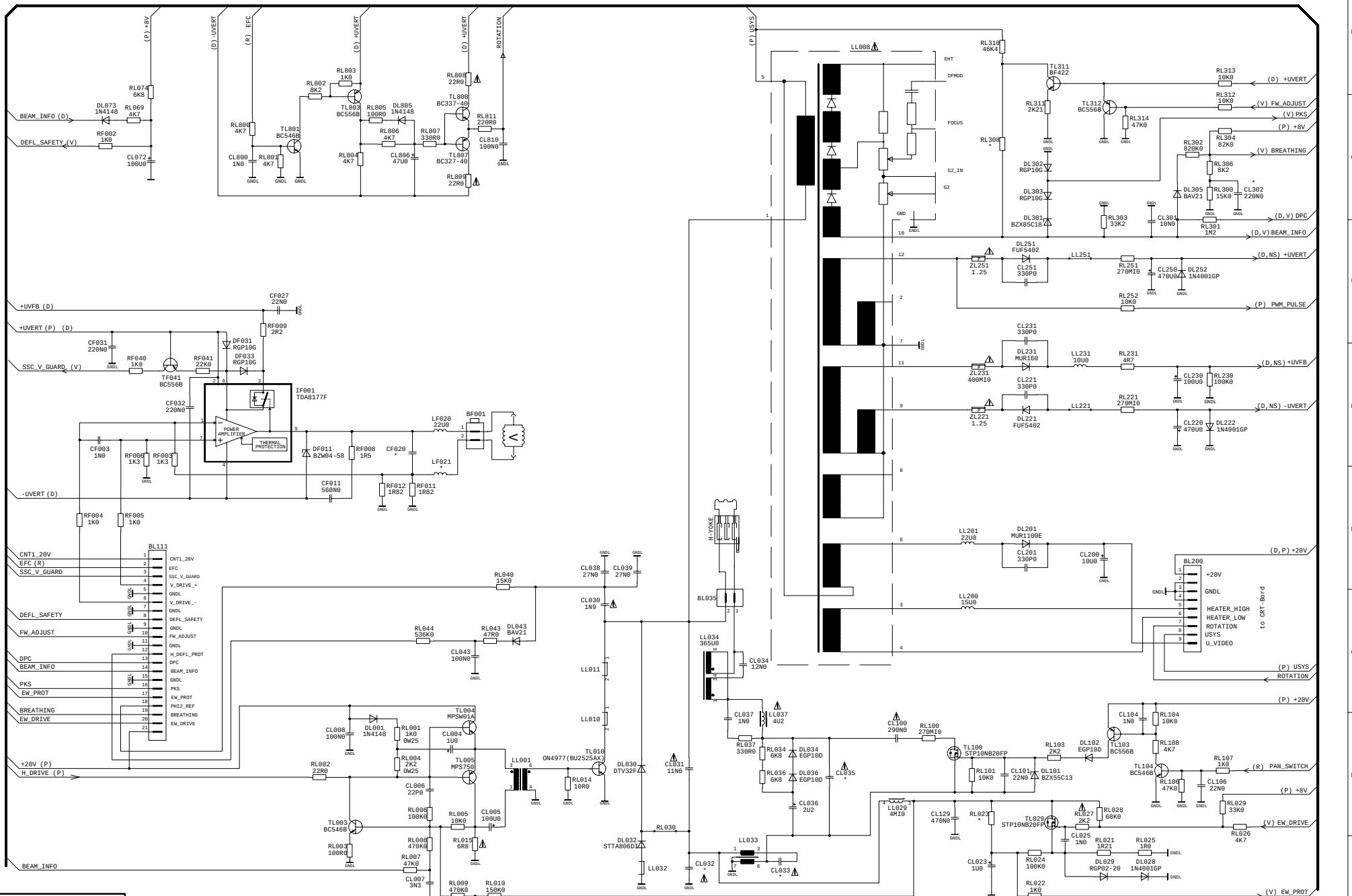
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ON: 28.04.99
BY: RIEDM.
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▲ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
▲ Safety part
When repairing, use original part only
▲ Piéce de sécurité
N'utiliser que les pièces d'origine

| * | CF020 | CL032 | CL033 | CL035 | CL302 | LF021 | LL008 | RL023 | RL308 |
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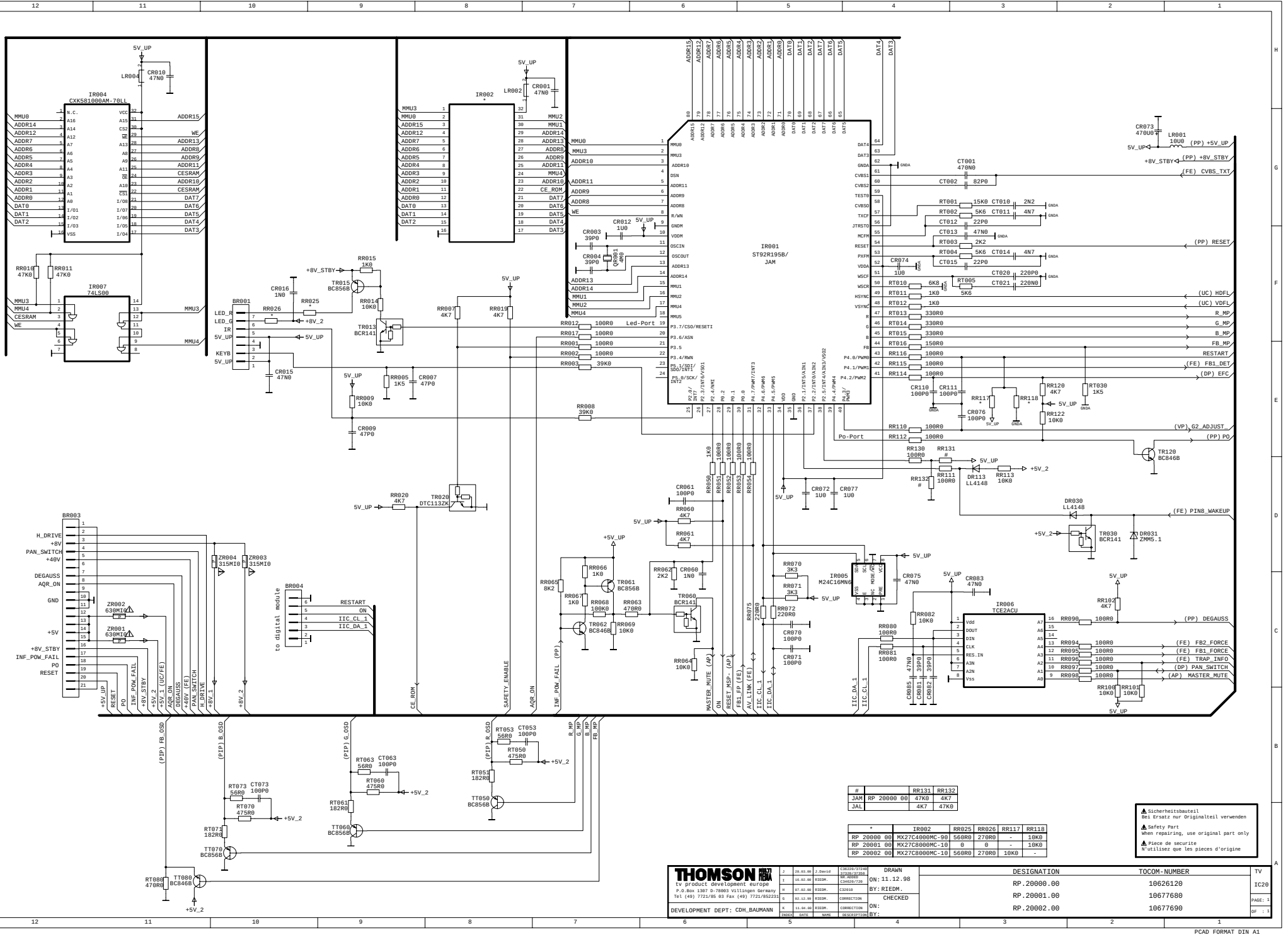
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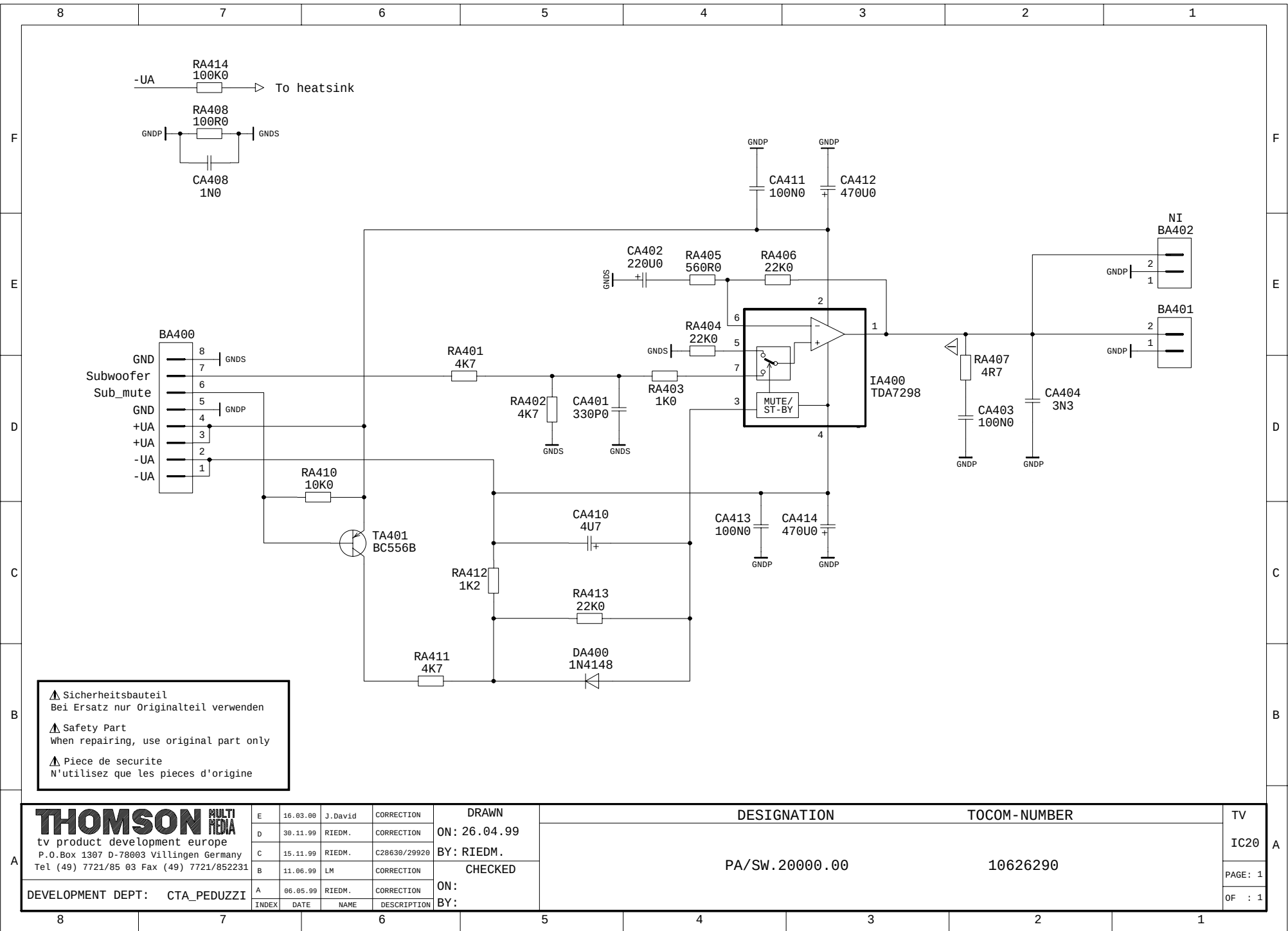
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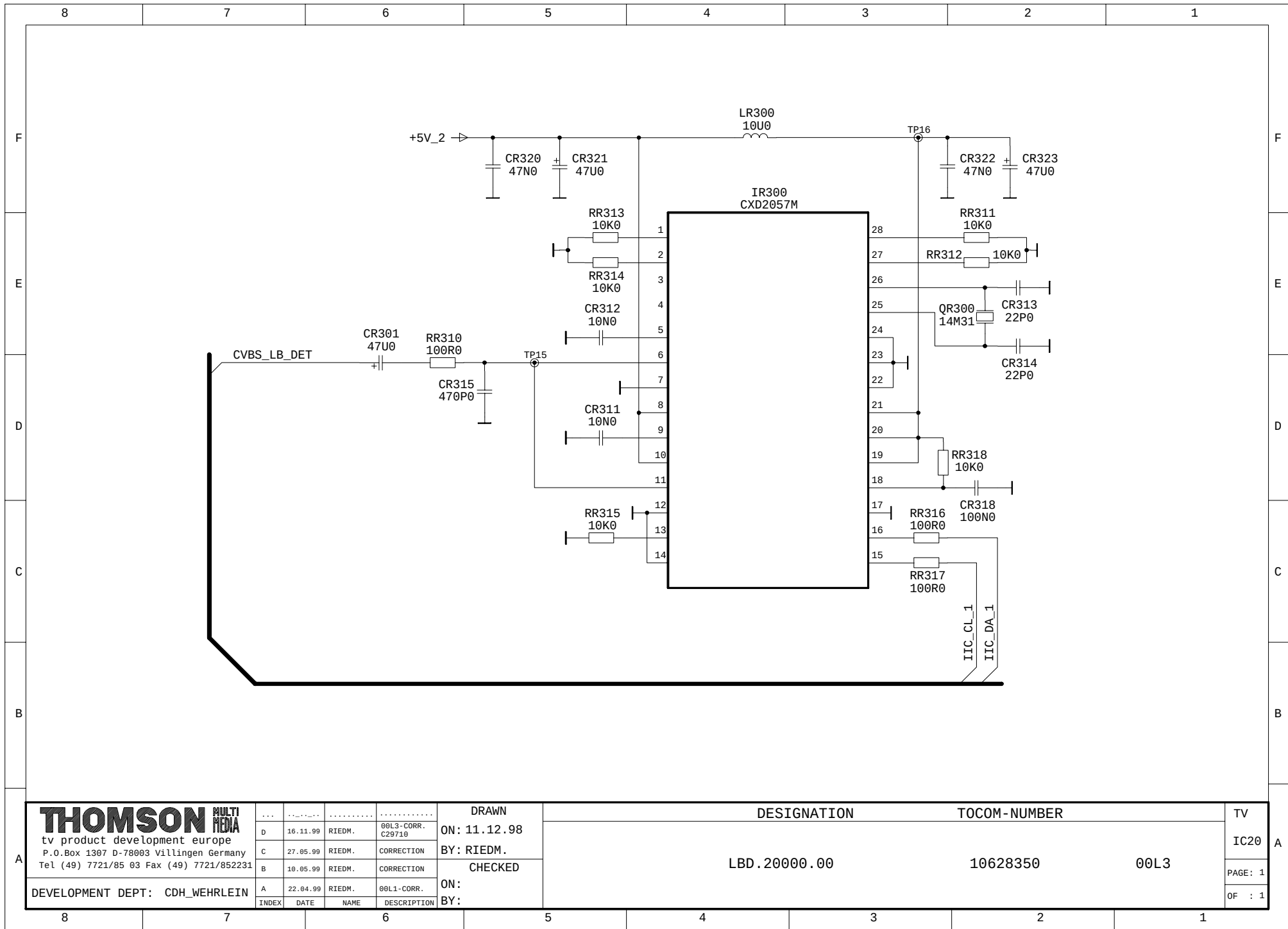




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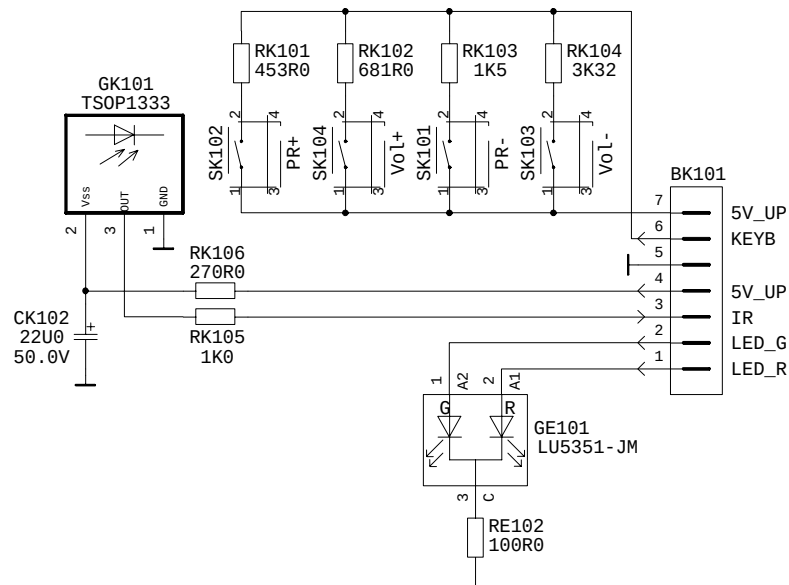


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| ... | ... | ... | ... |
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| B | 01.09.99 | RIEDM. | 00L2-CORR. |
| A | 20.04.99 | H.RUF | CORRECTION |
| INDEX | DATE | NAME | DESCRIPTION |

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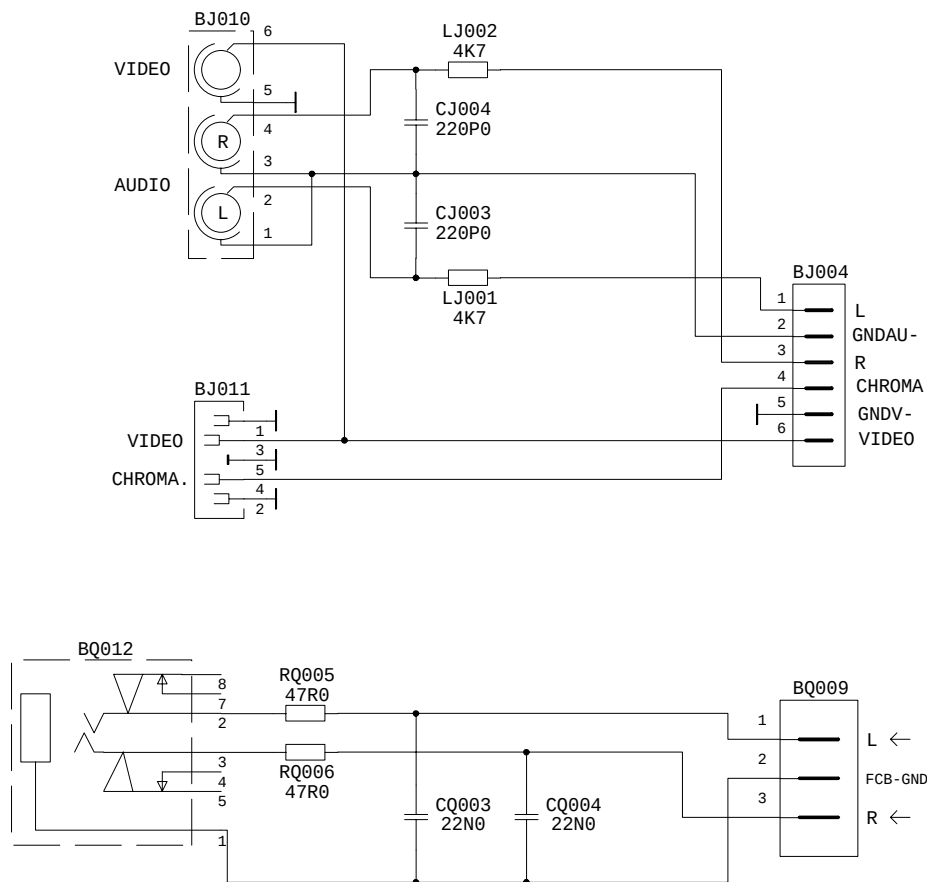
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| C | 25.02.98 | RIEDM. | C31330 |
| B | 05.08.99 | RIEDM. | 00L2-CORR. |
| A | 07.04.99 | RIEDM. | CORRECTION |
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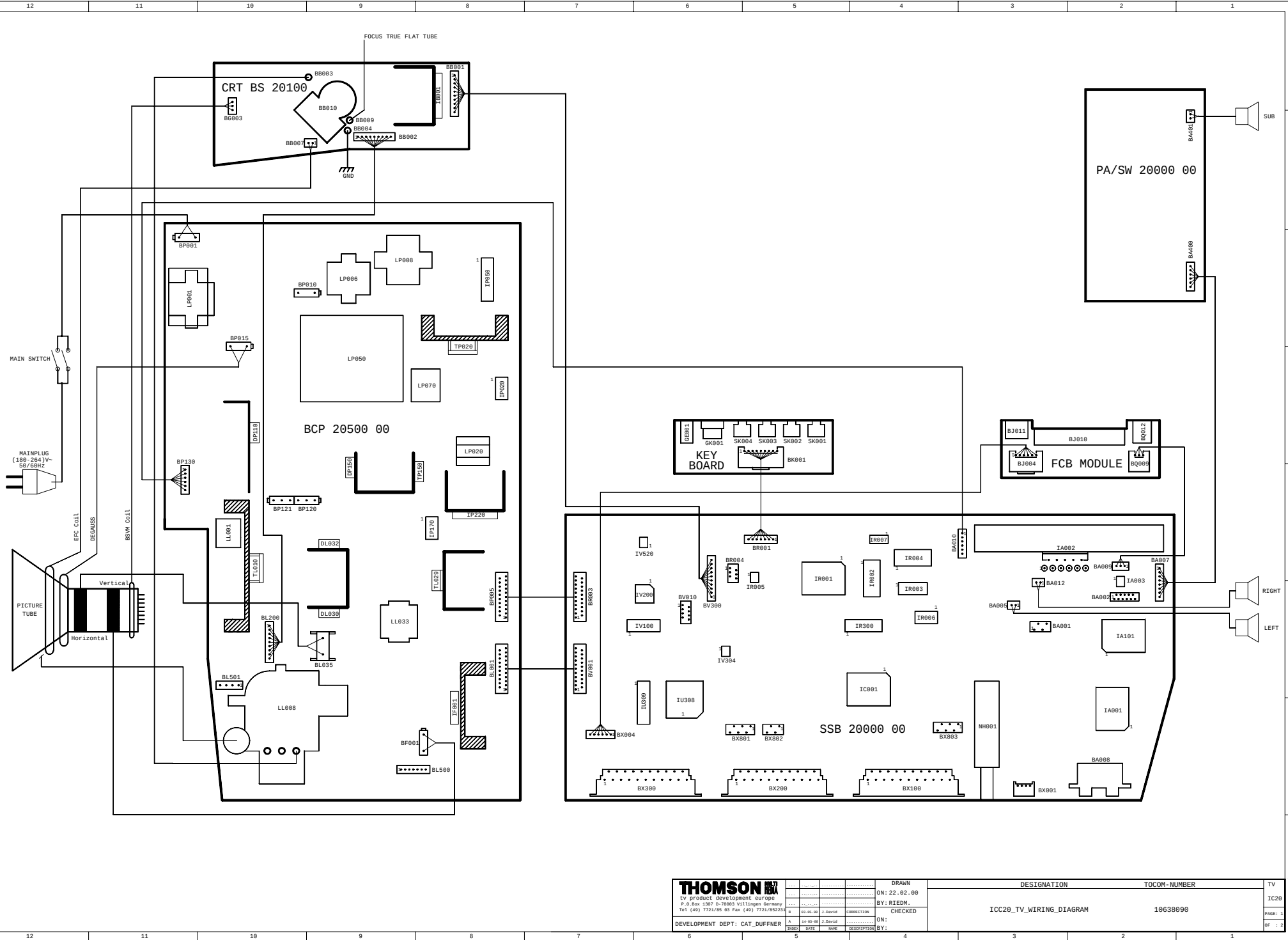
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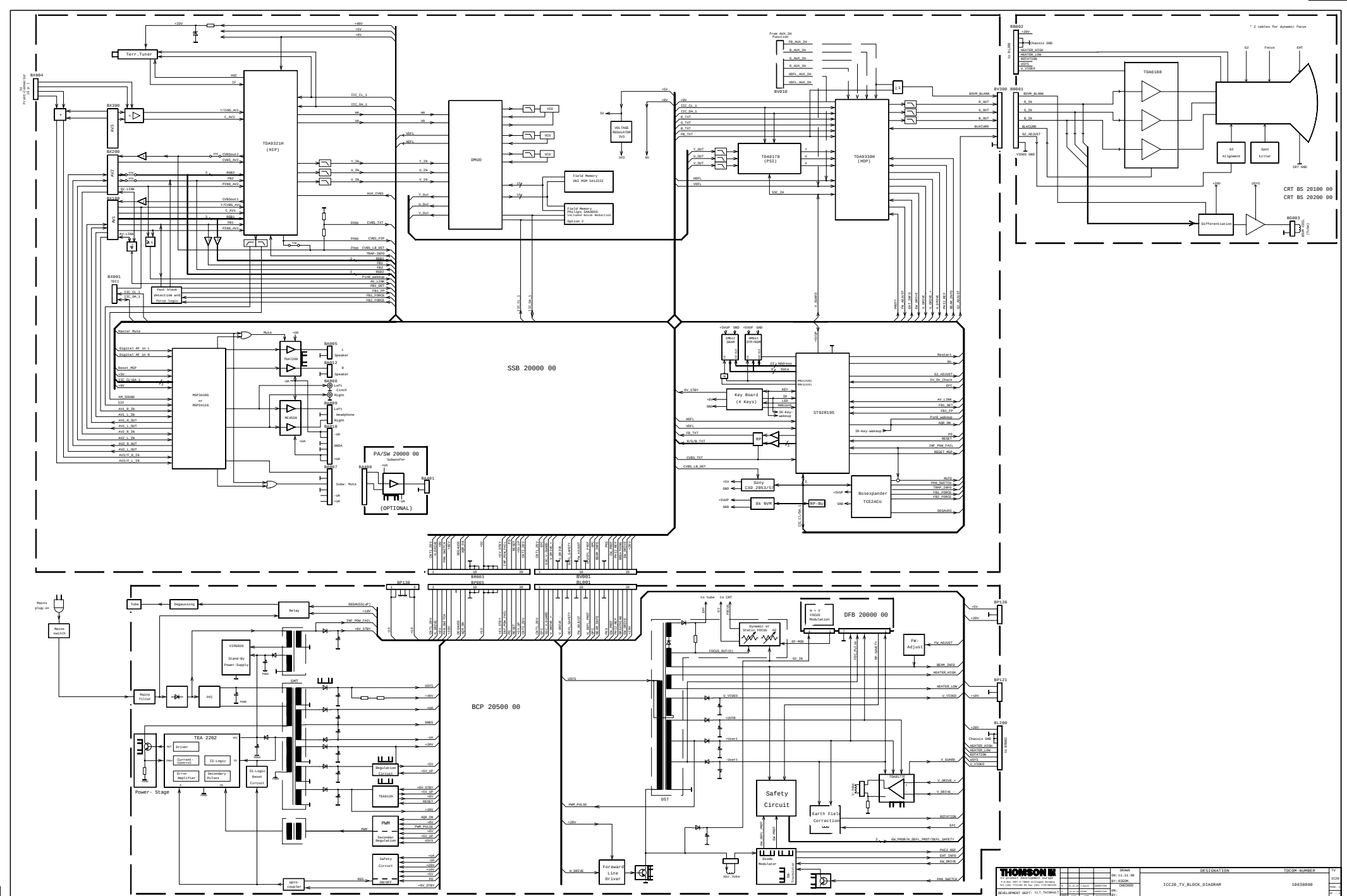
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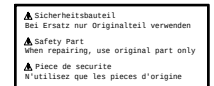
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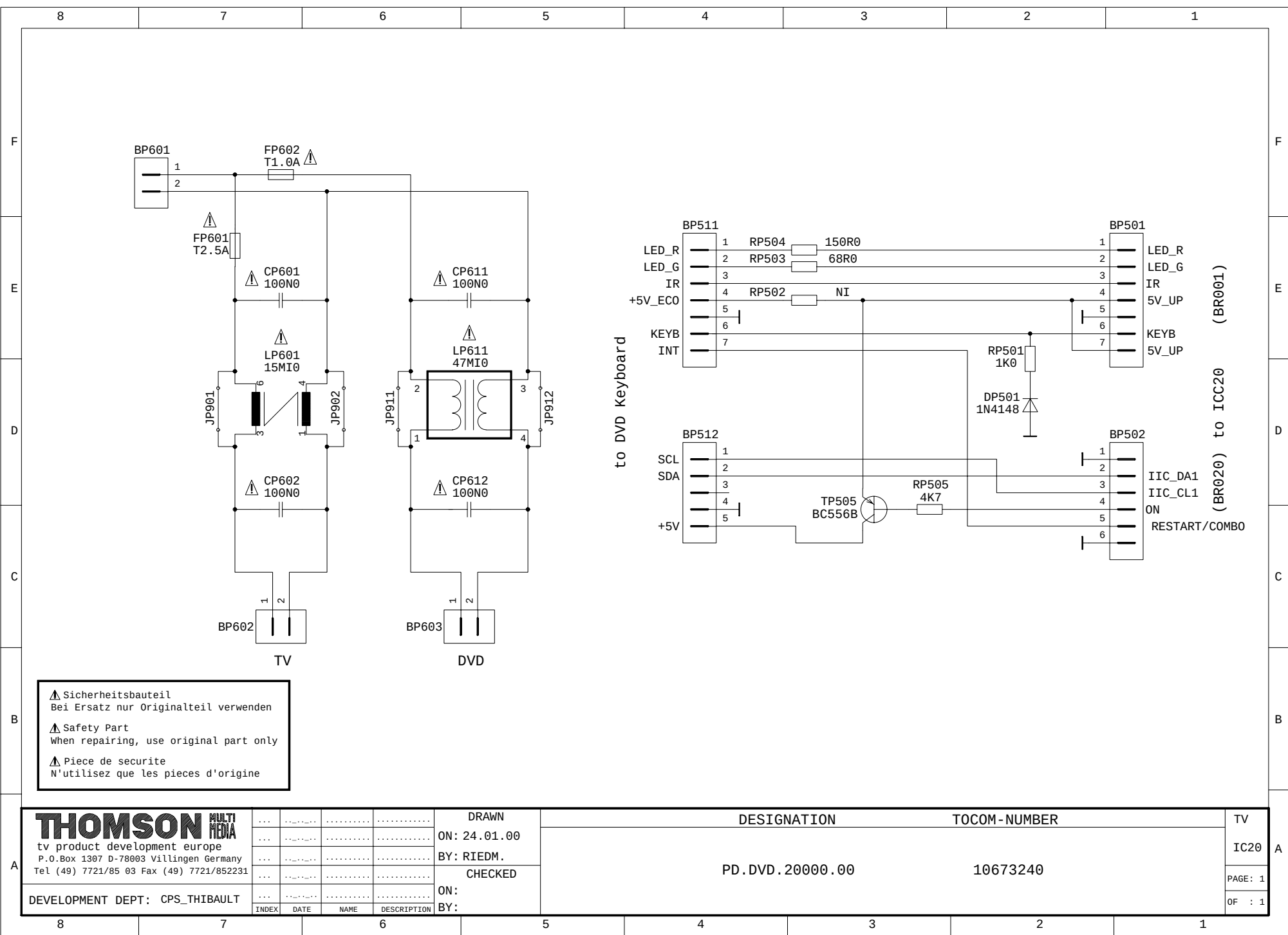


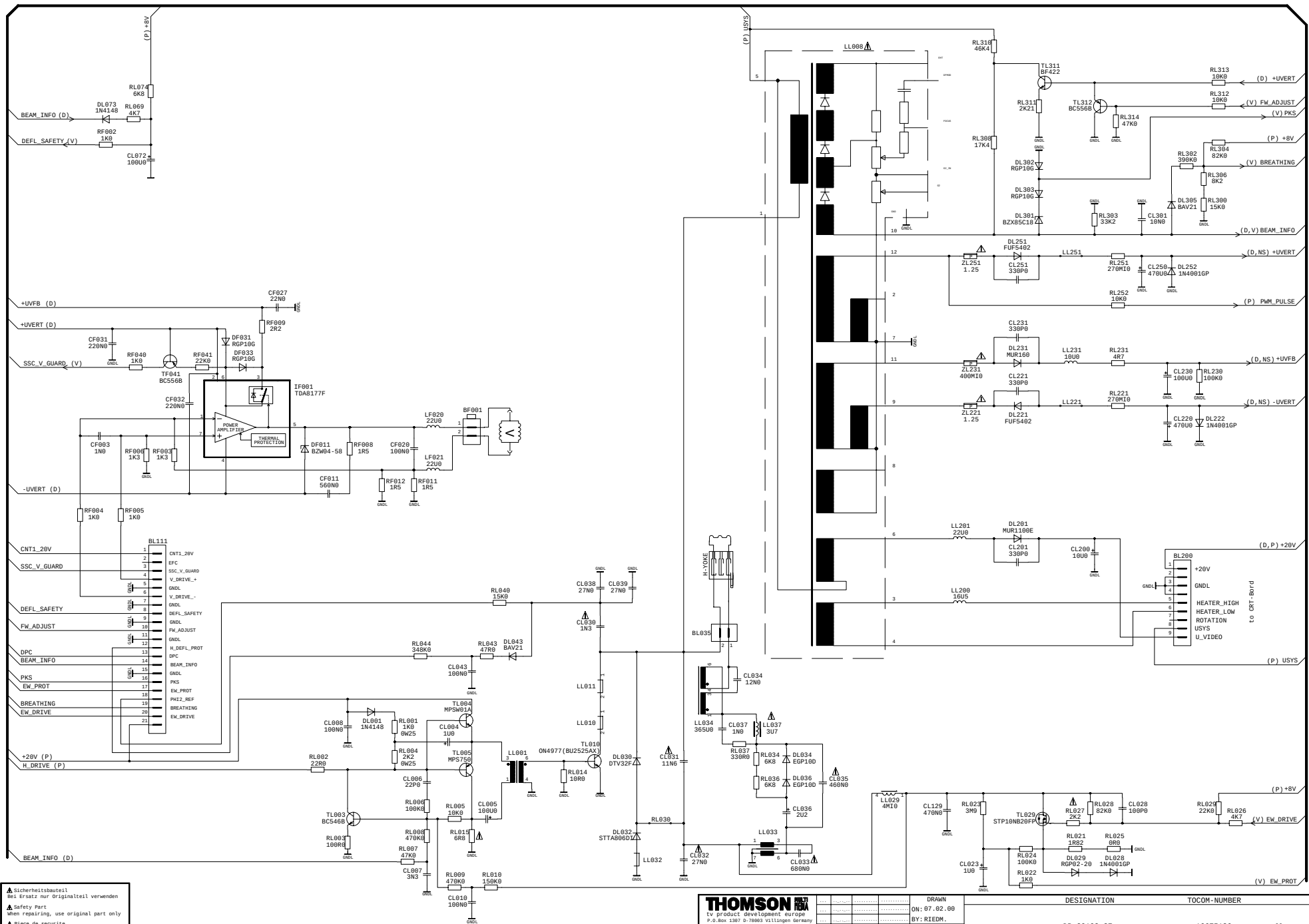
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ON: 22.02.00 | | DESIGNATION | | TOCOM-NUMBER | | TV | |
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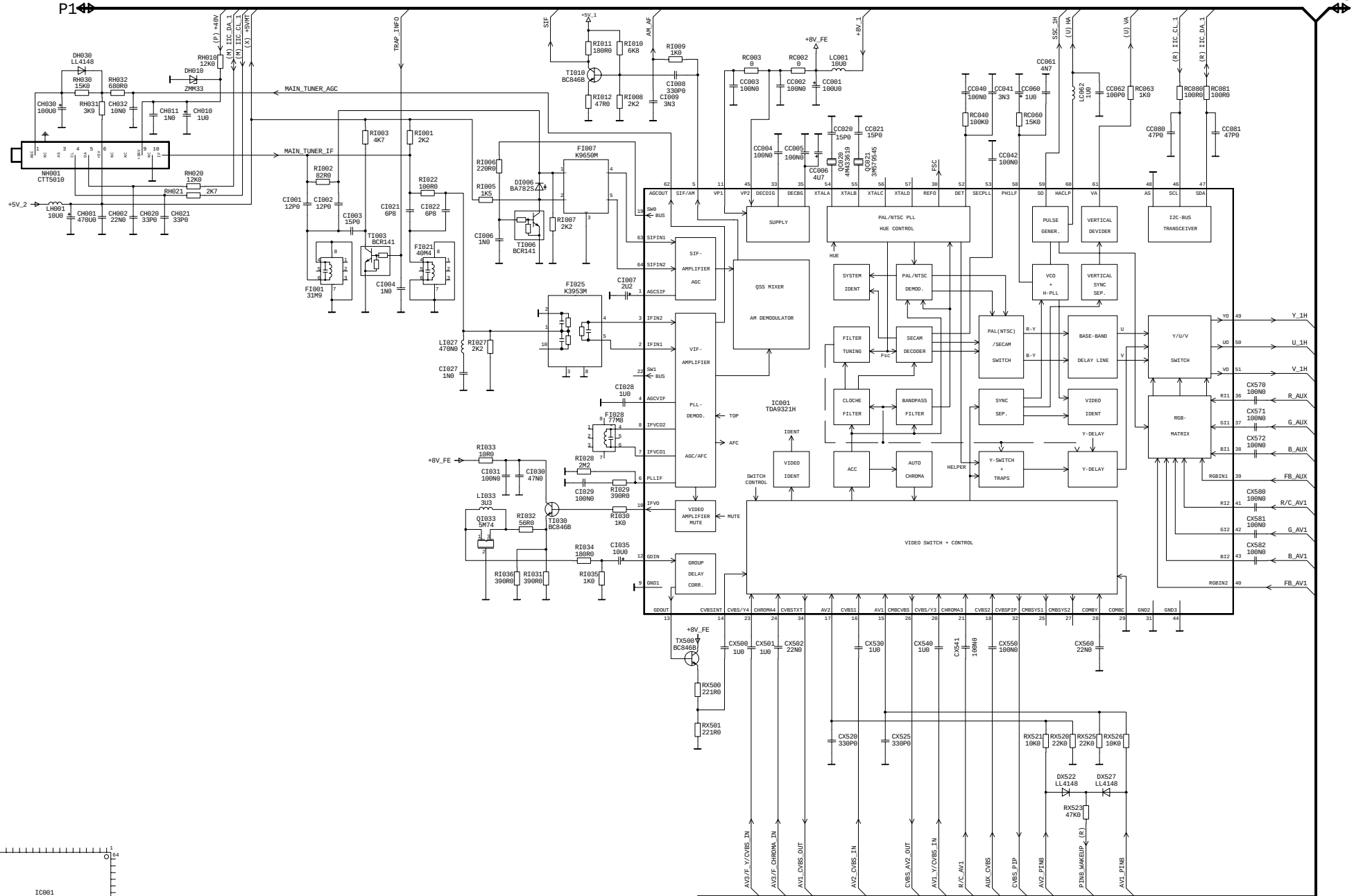
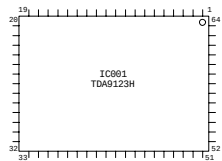




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BY: J.Dav1d

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DESIGNATION

TOCOM-NUMBER

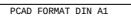
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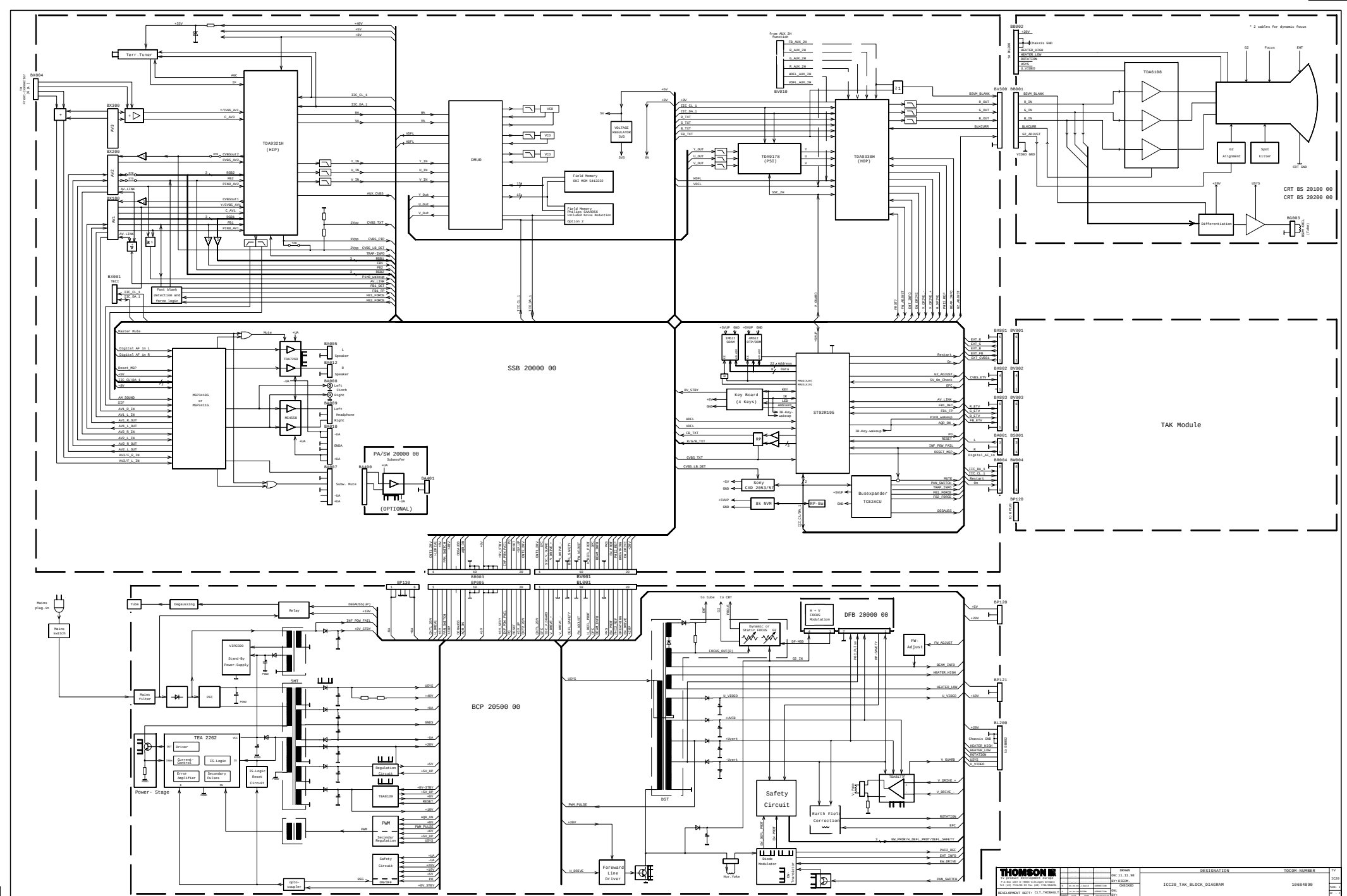
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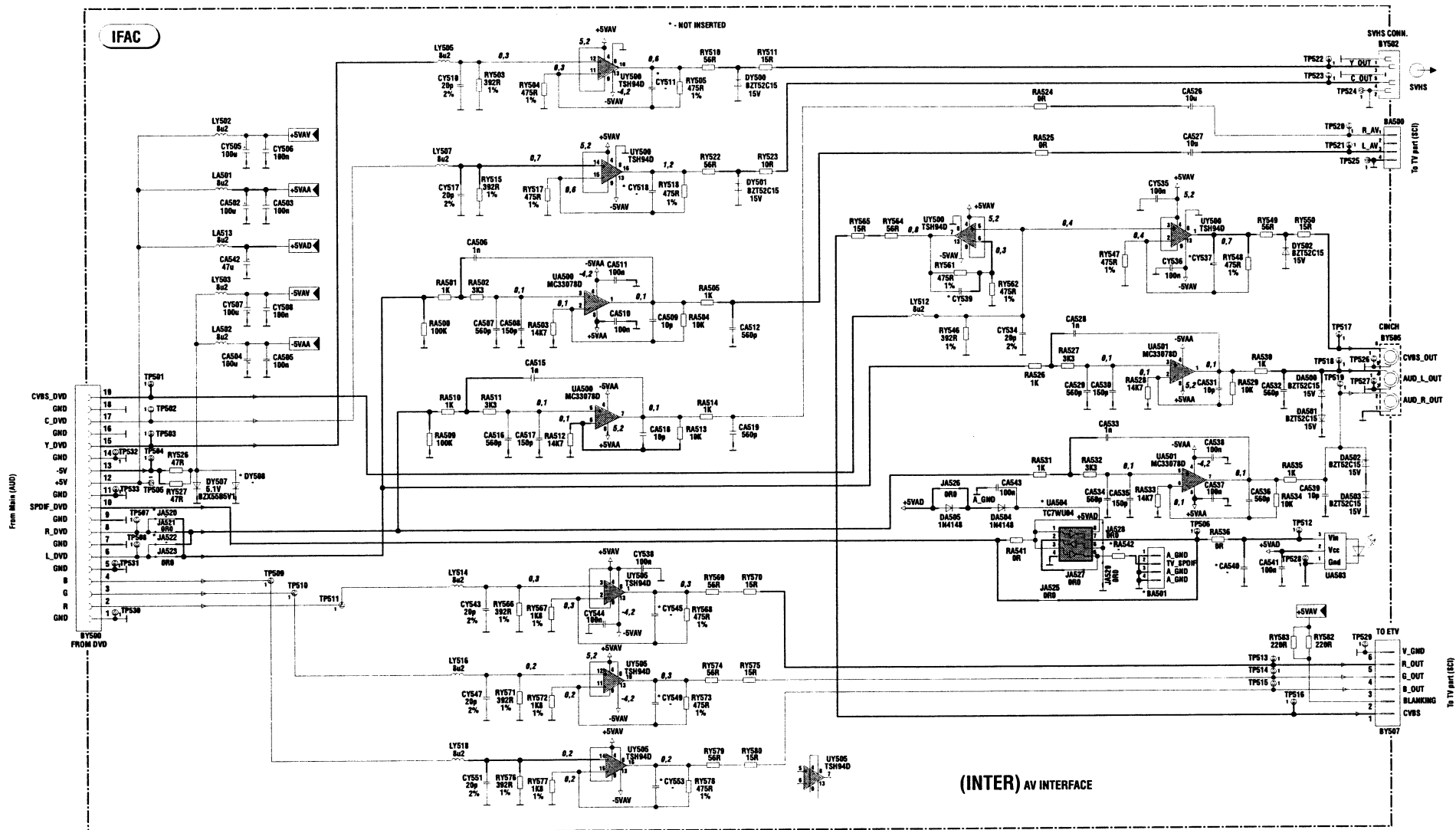
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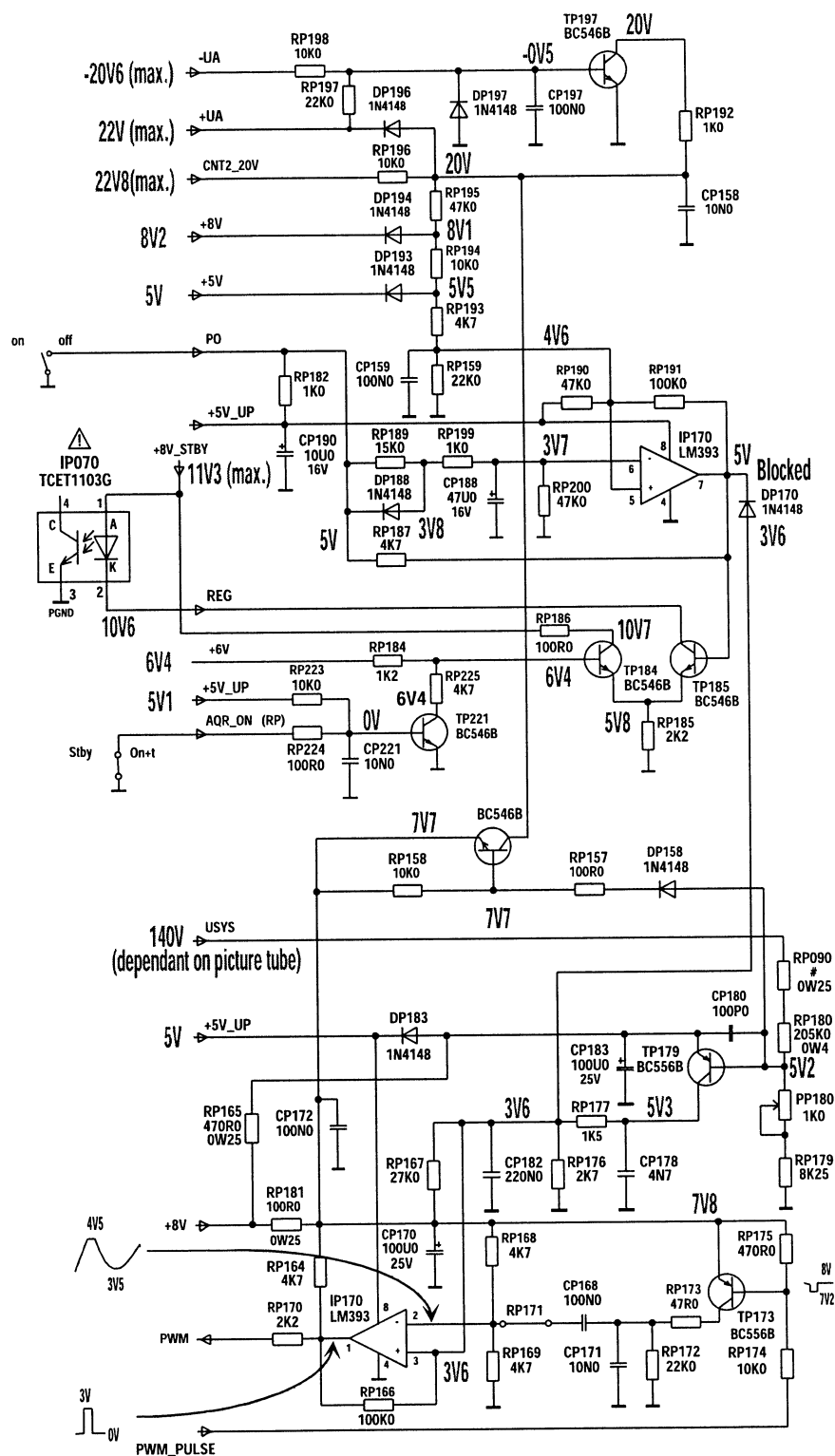




AV INTERFACE SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE INTERFACE AV - SCHALTBILD INTERFACE AV - SCHEMA DEI CIRCUITI INTERFACE AV - ESQUEMA DE LOS CIRCUITOS INTERFACE AV

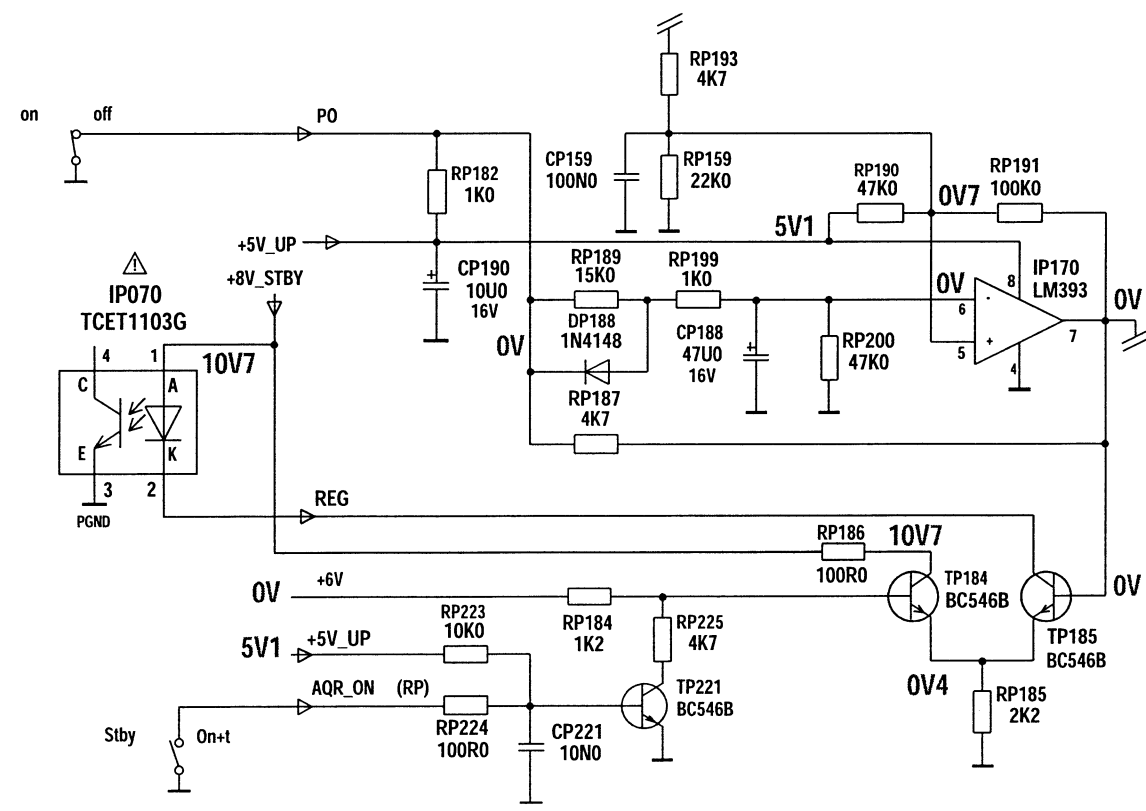


ON MODE



SECONDARY SAFETY VOLTAGES MEASUREMENTS

STANDBY MODE



BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBIID - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES

